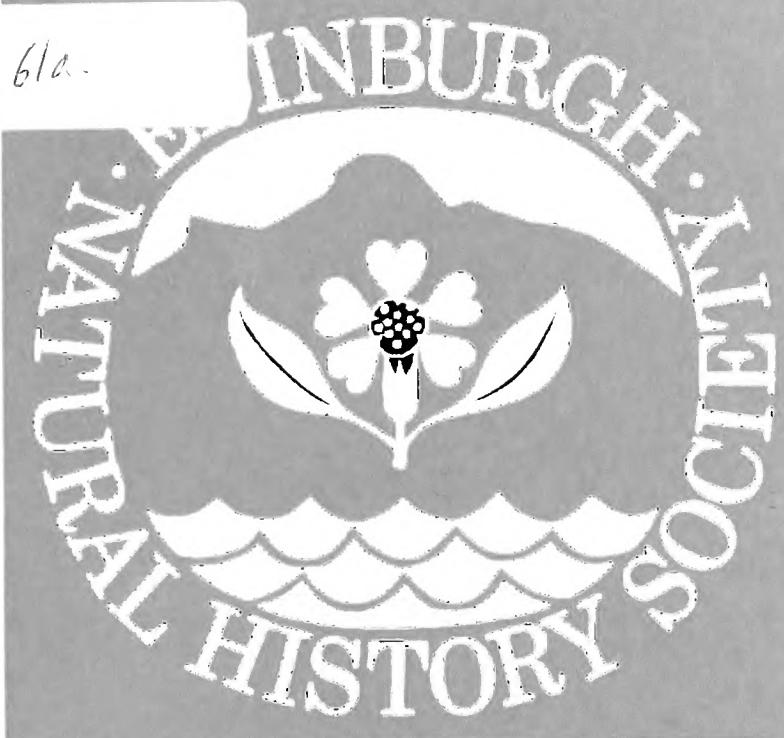


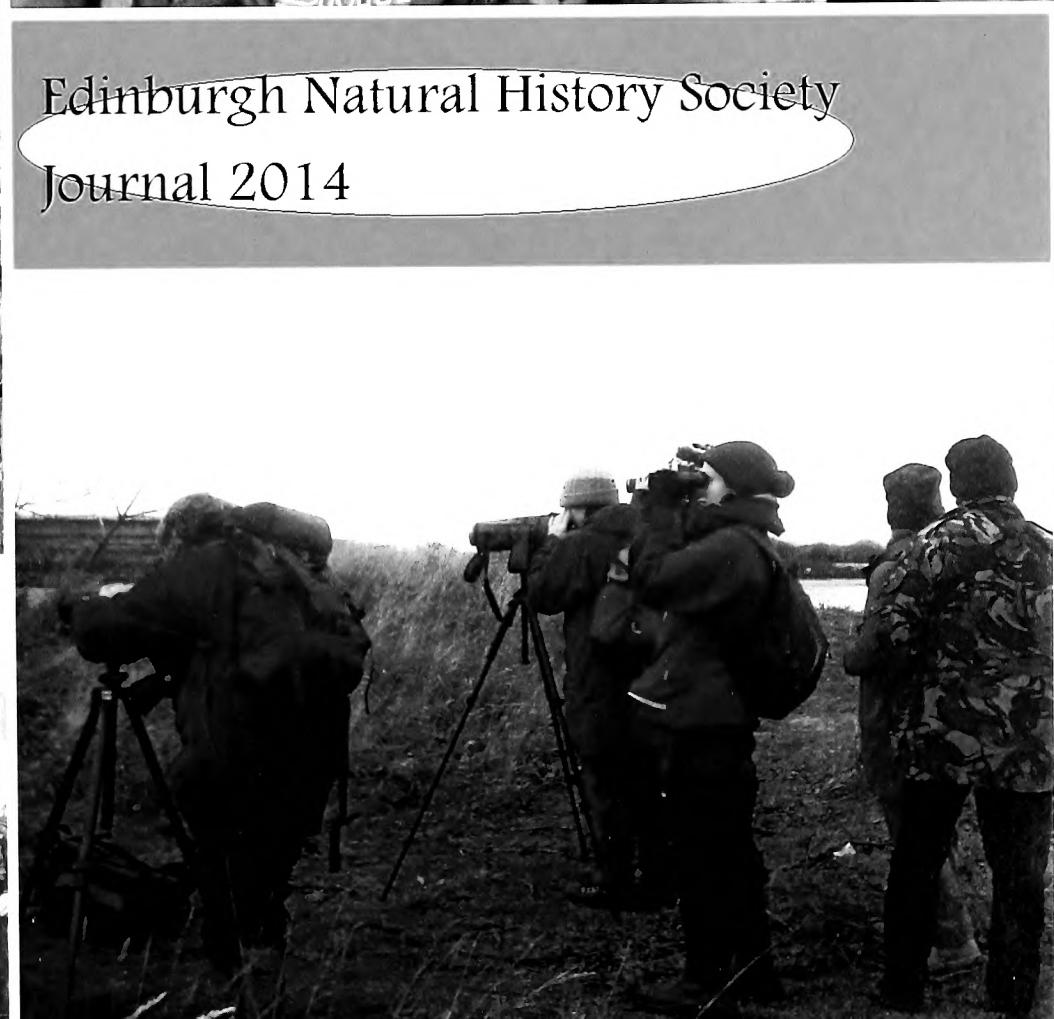
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NATURAL HISTORY
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Edinburgh Natural History Society
Journal 2014



Contents

2	Obituaries	
3	ENHS and Social Media	Sarah Adamson
4	Mobile Information using Smartphones	Pauline King
5	Mammalian Naming	Elizabeth Farqharson
7	Scientific Names of Birds	Sarah Adamson
8	Rainfall in Corstorphine	Munro Dunn
9	Community action	Sarah Adamson
9	Orchids	Jackie Muscott
10	Interview	
11	Invasive Non-native Species	Fraser Donachie
11	What the ENHS means to its members	
14	Observations 2013	
17	Workshops	
19	Outdoor Excursions	
56	Indoor meetings	
61	Firth of Forth Seabird Count 2013	Bill Bruce

Library

ENHS books are stored at The Wildlife Information Centre's (TWIC) offices, Vogrie. Contact can be made with Pauline King by email paulinekhome@msn.com.

Obituaries

Dr John Gibson joined ENHS during 1998. He passed away on 9 June 2013.

Eileen Perry (1926 – 2013) Eileen Perry and her husband Eric were from Hertfordshire and had a lifelong affection for Scotland. Joyce and I first met them 50 years ago when we were on our honeymoon in Glen Shee on a skiing holiday. They were both very keen Scottish Country dancers and we were warmly welcomed by them to make up a set. Over the subsequent years we spent many happy holidays with them, mostly in Scotland!

In addition to their passion for country dancing, Eileen and Eric loved the Scottish countryside and Eileen was an enthusiastic botanist who started my abiding interest in botany, buying us our first Collins Wild Flower Guide. I am sure we were not the only people she encouraged to take up an interest in natural history. We also shared an interest in bird watching and enjoyed visiting their holiday cottage in Norfolk, which was ideally situated for birding.

When they moved from Hertfordshire up to Peebles in about 1992, I introduced them to the Edinburgh Natural History Society which they joined the following year. They became staunch members and led many outings for the Society, usually ending with afternoon tea taken on their lawn. In addition, Eric was a talented artist and contributed to the Society through the illustrations he produced for the Journal, which are still in use. They enjoyed life to the full!

After Eric's death, Eileen was in need of support and was very fortunate when Mary and Vince came into her life. Mary was a constant friend and helper and supported her to the end.

Eileen was a wonderful friend, a real enthusiast for the natural world and will be greatly missed by her many friends in the ENHS. Rest in peace Eileen. Ian McCallum

John Watson (1936 – 2013) John died aged 77 after an illness lasting almost five years, during which time, it became increasingly difficult for him to participate in the Society's activities. For the decade before he had been an enthusiastic participant in our activities, particularly the excursions which he led, often in the West Lothian countryside which he knew well from his younger days. He did his national service in the RAF after which he became an employee of the Co-operative Society, rising to a senior managerial position with Scot-Mid. His love of the Scottish mountains led to him joining the Ptarmigan Mountaineering Club where he was a loyal member and office bearer

for many years. He enjoyed ballroom dancing with his wife Sheila and was active in the local horticultural society winning prizes particularly for his beloved dahlias. For several years he acted as the society librarian, classifying and cataloguing our collection. It was a difficult task which had long been needed. Quiet, modest and self effacing, his preparation for the walks that he would lead was meticulous. He was a keen photographer, especially of insect life and enjoyed the identification tussles with the unusual species. Annually we all benefited from this skill during the Christmas party slide shows. In the context of the friendships he made with us all, it would be doubly true to say he was one of nature's gentlemen. Neville Crowther

Edinburgh Natural History Society and social media

During 2013 there was a real communication revolution. Two major changes allowed this to happen. Firstly, the improved access to wireless and mobile wireless internet. Secondly, the availability and affordability of receiving/sending equipment ranging from smartphones to desktop computers. By the end of the year supermarkets were selling sophisticated, own brand tablet devices at under one hundred pounds, these devices are becoming increasingly easy to use. Curious about how this would influence the ENHS I put this to the members that use the Yahoo and Facebook (FB) groups.

It seems that these dynamic networks have changed how the group functions to increase open contacts between members, whereas, in the past smaller groups have used the telephone or social gatherings to pursue their interests. Would those using the social media platforms consider writing something personal or collaborative to add to the journal? I know that many members do not understand electronic social media, however, it is important to those that use it and as such relevant to how the society evolves.

A member in the 'do not understand' category, commented that since the Society set up a second communication medium, FB, in addition to the Yahoo e-mail news group, I have been concerned that messages may be posted on FB and not be visible to those of us who use only the Yahoo group and reluctant to have anything to do with FB. Conversely, it is possible for members to sign up only to FB and not be aware of messages on Yahoo. On the face of it, having two communication paths rather than one would seem detrimental rather than beneficial.

Some members actively use both groups. The Yahoo group is restricted to ENHS members and not very active but it is useful for messages about events and observations. The FB group is also closed with admin members authorising membership. It is a bit more of a taster to encourage people to take an interest in the ENHS and approximately one quarter are ENHS members. Many of the others are young and include members of the Edinburgh University Ecology Society. Anything important is posted on both sites but the FB site gets some ephemera which may be of interest to the community. There is cross-posting between FB groups such as Botanical Society Scotland FB group and sometimes non-members will promote ENHS events on other FB groups.

Lifestyle affects the networks with some long established ENHS members having regular phone and face to face contact where information is communicated which is missed by those more reliant on social media. A number of members watch the two groups and also visit the ENHS website. This passive watching seems to be the most common way to keep up to date. The original internet experiment was the ENHS website which still has a vital place amongst the options for promoting the Society. Recently, a potential member from London found out about the ENHS from an Internet search and then joined our FB when planning a visit to Edinburgh prior to relocation and subsequently joining the Society.

The ENHS appears to function well using the both traditional and newer methods to communicate, however, there are concerns that there may be gaps in the sharing of information. A major advantage with social media is that one can choose the amount of participation and a great deal of pleasure can be derived from being a passive observer. Without being a member of Facebook you can view public FB pages. However, as a member you can maintain your own FB and visit or join the ENHS FB. The ENHS FB includes photographs, information about developments, questions about wildlife, notifications of excursions and discussions about topics, such as the recent

expansion of beavers in Scotland. Members can post photographs and comments from an excursion to both Yahoo and FB. Of the three types of contact Facebook seems to be most dynamic and we can all be involved in or just listen to the conversations.

Sarah Adamson

Mobile Information using SmartPhones for Observations, Recording, Sightings and Field Guides - Spreading the word of natural history through social media

Many aspects of field work are supported, usually through smartphones, which allow real-time recording with global positioning systems (GPS) and identification with instant sound and video footage. GPS is a satellite-based navigation system consisting of a network of 24 orbiting satellites. The range of applications or 'apps' available to download seems limited only by your own interests, how much you want to spend and occasionally by patchy network coverage and compatibility for iPhone IOS, an android or Microsoft operating system.

The advantage of Facebook and Twitter is that you do not need to log onto websites to find out what's happening – news is streaming through from the sites you have liked or followed. These social media sites also allow users to share their information quickly and others can capitalise on this early notice if they share the same interest.

On Facebook (FB) not only is the ENHS FB page a great way to link with other organisations and individuals who want to follow our activities, you can choose to join a group such as Edinburgh University Ecology Society, Botanical Society of Scotland, Edinburgh University Zoological Society and you can like pages to follow whichever area you want to keep up-to-date with regarding developments or where you want to actively contribute.

Personally, I follow:

Scottish SeaBird Centre, Royal Botanic Garden Edinburgh, Scottish Fungi, Project Splatter, Scottish Natural Heritage, Lothian Bird News, Froglife, Scottish Beaver Trial, Bumblebee Conservation, Edinburgh and Lothians Greenspace Trust, The Scottish Ornithology Club, The Wildlife Information Centre, British Trust for Ornithology (BTO), The Woodland Trust, Butterfly Conservationto name but a few.

If I take BTO as one example – they post information daily on FB and have recently covered 'Seabird breeding shows impact of commercial fishing', and 'information regarding butterfly populations from the garden bird watch survey'. The most anticipated post was about the Bird Atlas 2007-11 and this was directly linked to YouTube to watch the video produced describing the work of recording and compiling the atlas and the changes in populations identified.

This site alone is a wonderful example of how accessible and up-to-date the information we have at our fingertips. It is also a great example of how individuals are able, and encouraged to contribute recordings, 40000 volunteers were involved in submitting local records to integrate a coherent national picture of the state of Britain and Ireland's bird populations. This information is available wherever you are, in one place – on a smartphone.

A mobile application or app is a software application designed to run on smartphones, tablet computers and other mobile devices. I use a variety of apps on my phone and one of the limiting factors with these is storage capacity, therefore, it is useful to gauge how useful the app will be before making the purchase.

- Birds of Britain and Ireland Pro is my most used app and is excellent in the field.
- BTO Ringers has the required level of detail which is more than I would use but it does also have a browser link to BTO Birdfacts which allow you to jump to trends and distribution, breeding and survival, biometrics, books and links.
- Record Wildlife does exactly what it says on the tin, and you also upload a photo and can maintain a log.
- Nature Guides, Bumblebees has an excellent facility where you can split the screen to make comparisons which can be very helpful for identification. Within settings you can see the suggested reading list of 18 titles or click through to the Natural History Museums website, Research and Curation > Research > Projects > Bombus.

- iRecord Ladybirds is an app from UK Ladybird Survey and BRC which allows you record your sightings, save photos and work with the ID Guide to check identity then click into further information, gallery and distribution maps.
- Partnership for action against wildlife crime in Scotland (PAWS) has an app to help record illegal destruction and theft of animals, plants and habitats both in the countryside and urban areas. It clearly sets out do's and dont's, maps, and how to go about reporting wildlife crime.
- Moths of Britain and Ireland is similar in set up to the Bird Guide but has been criticised as an identification tool because it requires you to start out with the name. Once you have it you can then tap on the species to view all the available assets then choose the one you want. Included are confusion species which is always helpful.
- Dragonfinder app has been developed by Froglife to help with identification, report sightings and provide species information.

I have increased my knowledge and understanding of a broader range of Natural History subjects through the accessibility of so much 'at your fingertips' information and welcome the encouragement through natural history social media sites for everyone to contribute and participate.
Pauline King

Getting to Excursions – a Satnav warning

Entering a postcode into a satellite navigation device, Satnav, will in most cases trigger it to guide you to the centre of the postcode area unless you enter supplementary address information. This is not a problem in towns where postcodes cover a small area, however, where houses are more sparsely distributed you may be guided to a place some distance

from your target. Recently, when looking up the information about a restaurant I was helpfully warned that Satnav would guide me to a point 500 metres to the west of the restaurant. Some ENHS members have experienced difficulty in finding start points because they have been guided to the centre of a postcode.

Sarah Adamson

Mammalian Naming

In September 2013 the Highland Wildlife Park at Kincraig announced that a foal had been born to their herd of Przewalski horses. When looking up my mammalian books for further information, I noticed that a surprising number of mammals had a person's name included in their title. These included three whales and a dolphin, one deer, and five bats. As I knew very little about these named people, it seemed worthwhile finding out more. There was Pere David's Deer, Cuvier's, Gervais' and Sowerby's Whales, Risso's Dolphin, and Daubenton's, Bechstein's, Leisler's, Natterer's and Brandt's bats.

Nikolai Przevalski was born in Poland in 1839 but was a Russian citizen. This accounts for the different spellings we find of his name. He entered the Russian Army but was never happy there as by nature he was a loner and strongly disapproved of the heavy drinking which was prevalent amongst the officers. His ambition was to be an explorer of unknown lands in Africa or Asia. Eventually he was granted his wish and his first journey into Central Asia started in 1871. In all he made four journeys in Mongolia suffering incredible hardships. On his third journey in 1879, aiming towards Tibet he came across his first encounter with the horse that bears his name in the form of a skin brought to him by tribesmen. In 1879 he saw them for the first time in the wild. He died in 1888 at the start of his fifth expedition. Much of the material which he collected on these expeditions was handled by Cuvier.

Although bats are far more numerous in warmer climes, we have five species in the UK which include personal references in their names. Louis-Jean-Marie Daubenton was a Frenchman born in 1716. His father wished him to become a priest, but after his father died he was able to follow his interests and graduated in medicine. His particular interest was in the comparative anatomy of quadrupeds. He is remembered as the man who introduced merino sheep to France. He died in 1800 and was buried in the garden of the Museum of Natural History in Paris. *Myotis daubentoni*, the water bat, can usually be seen at Blackford Pond.

Johann Matthaus Bechstein was born in 1757 in Germany. After studying theology at the University of Jena he taught for several years before switching to forestry. He was interested in conservation and bats in particular. His work covered ornithology, entomology, and herpetology. He died in 1822. I have been unable to find much information about Johann Philipp Achilles Leisler, who was born in 1771 or 1772 in Germany. He was responsible for naming a number of birds. The bat, *Nyctalus leisleri* is rare in Scotland but has been reported by the Scottish Wildlife Trust as breeding at Culzean Country Park.

Johann Natterer was an Austrian naturalist and explorer, born in 1787. In 1817 he joined an expedition to Brazil as a zoologist. He remained in South America for 18 years then returned to Vienna with large collections of specimens. These included 60,000 insects which were destroyed in 1848 by fire during the Vienna Revolution.

Johann Friedrich von Brandt was a German naturalist born in 1802. In 1831 he was appointed director of the zoological department at the St Petersburg Academy of Sciences. He handled many specimens sent home by explorers including material from Przevalski. Besides the bat, he has several birds and a hedgehog named after him. He died in Estonia in 1879.

There are three whales that can be found in British waters which are named after people: two scientists and an artist. In the late 1830's a French merchant seaman saw a dead whale floating in the English Channel. He removed the head which in due course reached Paul Gervais. Gervais was born in 1816 and was a palaeontologist. He worked in Montpellier, and the Sorbonne before moving to Paris in 1855. Gervais considered the skull to belong to a new species. However, doubts were expressed and continued until one was captured in 1889 and one was stranded in 1905. Gervais died in 1879.

George Cuvier was born in 1769 in the German Duchy of Wurttemburg which became part of France in the 1790's. As a student he studied comparative anatomy. In due course he joined the staff of the Museum of Natural History in Paris. In 1823 he was sent a fragment of a whale skull which he mistook for a fossil. He described it as an extinct species, but several years after his death it was realised that it was relatively abundant. *Ziphius cavirostris* is seldom seen at sea so most information has been collected from stranded whales. One was stranded in the Moray Firth in 2008. It has a recorded diving depth of 1,900 metres and can remain underwater for 85 minutes.

James Sowerby was born in 1787 and later became a student at the Royal Academy in London. When he was 20 he exhibited a life size drawing of the skull of a whale which had been stranded in Scotland in 1800. His drawing enabled scientists to describe it as a new species - *Mesoplodon bidens*. Strandings of this species are rare. One came ashore in Wales in May 2013.

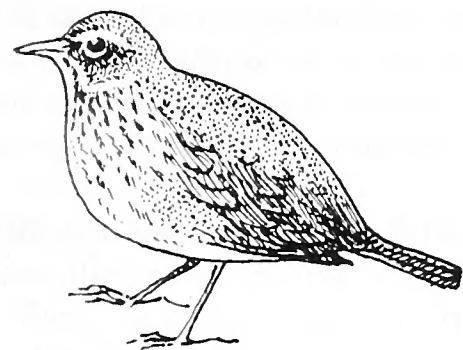
Risso's dolphin is named after Antoine Risso who was born in 1777. He spent most of his life in Nice where he became Professor of chemistry and botany in 1832. He named over 500 marine genera and species, but the scientific name, *Grampus griseus*, of his dolphin does not include his name. Named after him are a genus of gastropods, a genus of algae, and a lantern fish. Risso's dolphins are found in groups, are widespread, and frequently follow ships.

At many wildlife parks you will encounter Pere David's deer. They are all descended from three that he sent home from China. Jean Pierre Armand David was born in 1826 in France. At an early age he showed an exceptional interest in the natural sciences and acquired extensive collections covering many subjects. He wished to be a missionary and joined a religious order in 1848 when he was 22. Three years later they sent him to China. When the Natural History Museum in Paris heard where he was going they asked that he be allowed to collect material for them. China had only opened its borders to foreigners 30 years previously so it was unexplored country for scientists. Armand David spent the first two years around Peking and while there he managed to see the deer kept in the Imperial Hunting Park and realised that they were exceptional. It took a few years of negotiating to obtain the few that came back to Europe. In 1895 floods killed the park deer and the only ones to survive were the ones that David had sent back to Europe. He is also remembered as being the first European to see and describe the giant panda which was relatively abundant at that time. He died in Paris in 1900.

Elizabeth Farqharson

Scientific Naming of Birds

It is a shame that scientific bird names are neglected. They give insight into diverse families, such as the thrush family, *Turdus*. Someone new to birds can not fail to see that our British thrushes look similar but their common names are mostly unhelpful with examples like, blackbird, ring ouzel, redwing, fieldfare, mistle thrush and song thrush. A quick look in a book will reveal that they all have scientific names beginning with *Turdus*. This knowledge may be helpful when using a field guide.



Furthermore, should the names be referred to as scientific names or Latin names? Many of the words involved are not originally Latin. They range from classical Greek, Norwegian, Russian, Malay, Old English, people and place names. Some are pure fantasy and many descriptive. Scientific names are often more interesting than the common ones. The wren is *Troglodytes troglodytes*, a troglodyte. It describes how a group of wrens explode out of what looks like a little cave in the undergrowth or a birdbox. The family, *Alcedinidae*, contains genera of kingfishers *Alcedo*, kookaburra *Dacelo*, and banded kingfisher *Lacedo* and they are anagrams.

The old world warbler family, *Sylviidae*, which has most members in reed, scrub and leaf genera, however, it also includes kinglets like our goldcrest. The birds in this family have many visual and behavioural similarities and have triggered much dispute over the years now being sorted out by genetic studies. Don Roberson's website displays many species and attempts to help us understand this big group of little birds - <http://creagrus.home.montereybay.com/sylvids.html>

In most cases using scientific names should add clarity and allow birders to understand more about birds in other regions whilst travelling. The names should be the same wherever you are, however, it is confusing when more information about a bird is discovered resulting in the bird being moved into another classification group. Whereas, it is commonplace for organisms to have numerous local names, for example, the blue tit *Cyanistes caeruleus* has various other names such as tom tit, blue cap, titmouse and blue bonnet. Alas, even this scientific name is new, previously known as *Parus caeruleus* but now the only UK *Parus* is the great tit *P. major*. The knowledge of the changing scientific names may help those studying birds keep track of classification. Helpfully most resources will quote both modern and historical names.

Sarah Adamson

Water

After the wettest year recorded in Edinburgh which started with a 3 month drought, I visited Blackford Pond on the 1st January 2013. It was fortunate I was wearing wellies as the path round the pond was flooded, and, in places, the ducks were swimming happily over the low rail which surrounds it. The path uphill from the pond was running with water too as it had been doing for the past few months since a spring appeared part way up. Eventually they dug a ditch from the spring, whereupon it dried up. And the ponds which had decorated the Meadows for months duly disappeared. The Usher Hall had been suffering from water welling up in the basement on the way to the new loos, perhaps due to the high water table. That too has now dried out.

As for the vegetation trees, hedges and shrubs put on extra growth and the old-fashioned Michaelmas daisies on the back green grew very tall and were then bashed down by the wind and rain compacting into a horrid mush. It was so nice to see the sun again this summer despite the slow start!

Jackie Muscott

Broadening Horizons

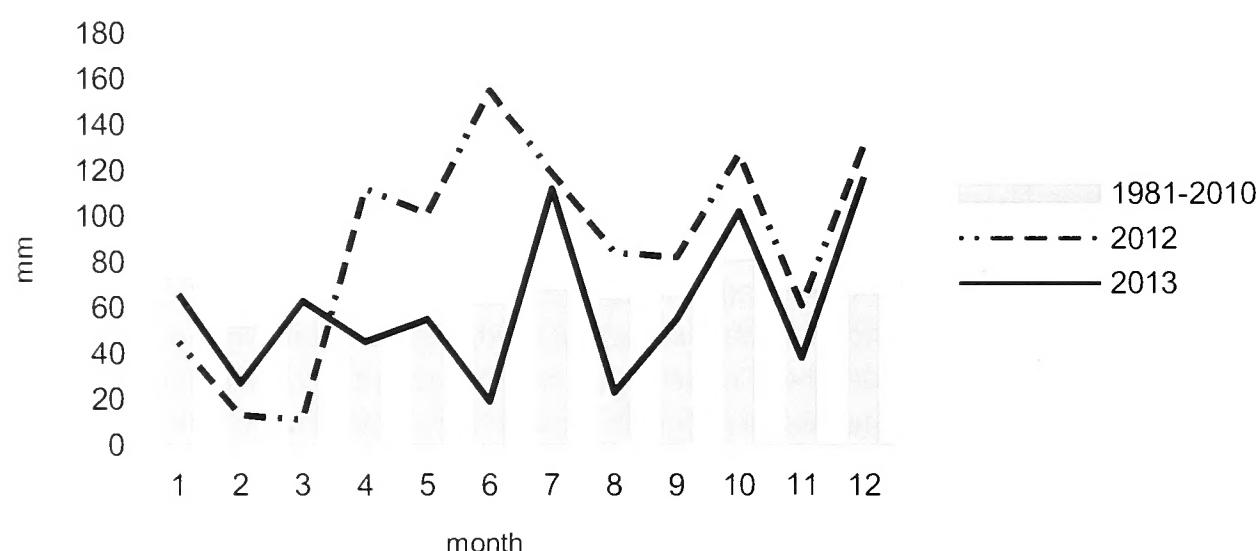
Many members choose to take natural history holidays or extend their interest wherever they are. Just a short journey away the collections of organisms are different because the geology, climatic impact and latitude create unique habitats. Molly Woolgar observed three nightjar in Blean Woods, Kent at the end of May along with woodcock and nightingale. The nightjar always rare in Scotland

is a curious sight in the south of England. Nearer the coast of Kent at Reculver finding a little owl and along the Northumbrian coast various terns including roseate, little, Sandwich, arctic and common. Two meadow pipits showed displeasure at a cuckoo which was resting on a fence on Lindisfarne. These forays from central Scotland are often the inspiration for longer summer outings.

Rainfall in Corstorphine in 2013 – A drier summer than last

The rainfall recorded at Hillview Road, Corstorphine in 2013 was 722mm, slightly below the long-term average*. This was chiefly because of a drier than average summer, much drier than 2012, the 3 months June to August yielding only 154mm in 2013, as against 438mm in 2012, a reduction of 65%. Indeed, but for a very wet last 10 days of July we might have enjoyed a reduction of nearly 90%. Notably dry months were February, June and August, but these were balanced by excesses in July, October and December.

Comparison of rainfall in 2013 and 2012 with the average for 1981-2010*



Rainfall (mm) data from previous figure

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
2013	66	27	63	45	55	19	112	23	55	102	38	117	722
2012	45	13	11	112	101	155	119	84	82	127	61	131	1121
1981-2010	73	52	55	45	53	62	68	64	65	81	68	66	752

January 2013 was typical of that month with 66mm, evenly spread. **February** was decidedly drier than average and apart from a 5mm fall over the 23rd - 24th, no rain at all fell over the 20 days from 14th February to 5th March. The remainder of **March**, however, was wetter than average. Like January, **April** had almost exactly the long-term average total rainfall. 25mm, about half of **May**'s average rainfall, came in one day, the 18th. No day in **June** had even 4mm of rain, and the total fall was less than one-third of normal. **July** was a month of extremes, no significant amount of rain fell over the 18 days from 5th to 22nd, but the 107mm in the last 9 days resulted in a total about double normal. Drier conditions returned in **August**, with no day contributing more than 5mm to a total only 30% of average. **September** was mostly quite a dry month, but a 33mm fall on the 6th contributed 60% of its total. Typically, **October** was a wet month, with only 8 days lacking a significant rainfall. This year's longest spell without a dry day was the 16 day run from 13th to 28th. In contrast, **November** had only 56% of its normal amount of rain, 58% of which fell in the first week. **December**, however, was a wetter month than usual, with its total, 58% above average, fairly

evenly spread. The percentage of days with significant rainfall in 2013 was 50%, precisely the same as the long-term average.

2013 was, therefore, an average year in terms of its total rainfall, if not in terms of its rainfall distribution, this is if it is compared with the long-term average*. Yet it was drier than all except 3 other years since the beginning of the present century. And the sharp upward trend in rainfall recorded over the past 48 years at this recording point as elsewhere, suggests that the annual total we can now expect is not 750mm but upwards of 850mm. It is, therefore, arguable that 2013 should be categorised as a year which was considerably drier than normal.

Munro Dunn

*Readers should note that, following Meteorological Office practice, the reference period against which current returns are compared has been advanced from 1971-2000 to 1981-2010.

Tufted Vetch and Hairy Tare



Both Vetches



Hairs below
Tufted vetch



No hairs
Hairy tare

It is quite difficult to tell the difference between tufted vetch *Vicia cracca* and hairy tare *Vicia hirsuta* in the absence of fruit or flowers. Both are scrambling plants with many narrowly-oval leaflets on pinnate leaves. Tufted vetch usually grows much taller and

has long spikes of blue flowers, while hairy tare has small clusters of much smaller white flowers. In fruit tufted vetch has long smooth pods while hairy tare has shorter hairy pods - that's where the hairs come in. There are differences in the leaves however. Those of tufted vetch narrow gradually to a point and have flat hairs on the underside, while those of hairy tare have a flattish tip with a point in the middle and are smooth all over.

Jackie Muscott

Community Action – Murieston Environmental Group (MEG)

Saturday 18th May 2013

Two members visited Cambridge Park which was adopted by the local residents when they realised the level of neglect and vandalism. Enthusiastically caring for their special place they are fortunate that some members have valued skills to maintain this area. They organise work and pleasure activities, fund raise, educational visits and generally raise awareness of the value of natural places. Other groups including the Fungus Group of South East Scotland (FGSES) had already visited the site and, recently, MEG recorded the fish in Murieston Water as part of the River Forth Fisheries Trust data collection activities. The ENHS joined members of the local group for a very wet couple of hours picking up litter, a regular activity, and were shown around the different parts of the park. The reward was coffee and cakes provided by a MEG member living adjacent to the park. Since the visit much work has been done maintaining the pond and paths. Some local 'excitement' still occurs including the recent theft and torching of a car in the car park. All their activities are documented on their website and Facebook page.

Sarah Adamson

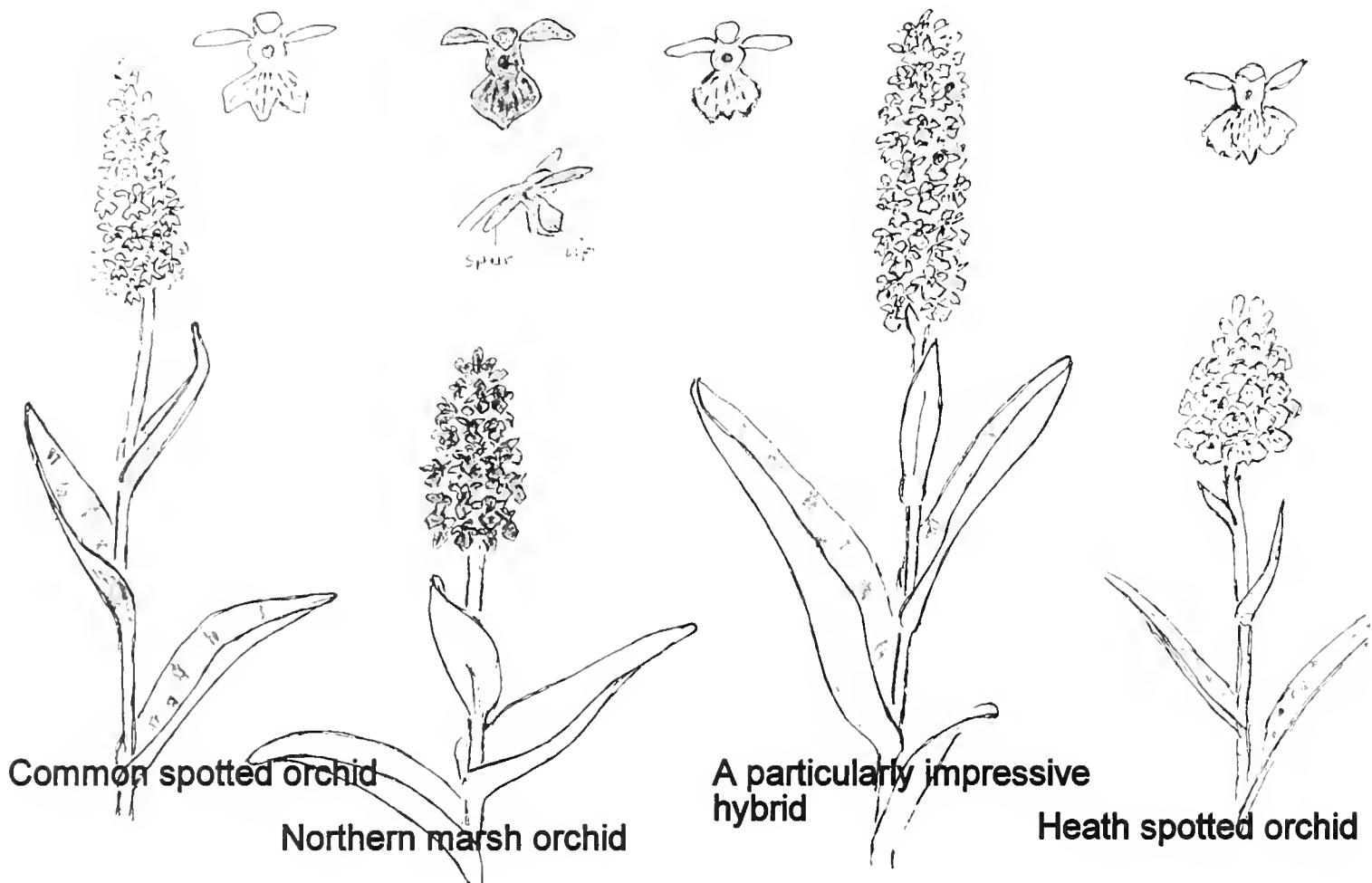
Orchids

The northern marsh and heath spotted orchids are both good colonisers of suitable disturbed or waste ground. They prefer neutral to base rich soils, preferably damp, especially in the case of the northern marsh, and they are quite often found together.

The common spotted orchid *Dactylorhiza fuchsii* is taller and slimmer with pink flowers and blotched, rather than spotted, leaves. The lip is divided into three almost equal segments and marked with purple lines or loops. The northern marsh orchid *D. purpurella* is shorter and fatter with purple flowers and unmarked leaves. The lip is almost diamond shaped and scarcely toothed. It too is marked but this is less noticeable because of the dark colour.

When these plants grow together they may hybridise. Usually the hybrids *D. x venusta* are intermediate in size and colour, but usually with blotched leaves and a somewhat divided lip.

Occasionally however the hybrid inherits the height of *D. fuchsii* and the chubbiness of *D. purpurella* with spectacular results – a tall plant with a long fat flower spike and the usual blotched leaves.



The other spotted orchid, the heath spotted *D. maculata* is confined to acid peaty soils and is never as tall as the common, sometimes quite a lot smaller. Flowers are pink but quite variable, sometimes almost white, and leaves are spotted rather than blotched, the spots sometimes very pale. The flowers have a very frilly lip, again marked with dashes or loops, and again divided into three but the central segment is much smaller than the outer two.

All these orchids are fertilised by bees. The lip forms a comfortable resting place and the spur at the back is just the right length for a bee's tongue.

Jackie Muscott

Interview with Fraser, a regular participant on excursions

When did you join ENHS? I joined ENHS in 2005 at the age of 9.

Why did you join? After watching Springwatch I decided to search the internet to see if there was anything in Edinburgh to do with natural history that was hands on and that allowed for the opportunity to get up close and actually see the things I had only ever seen on Springwatch and other programs to do with British wildlife. At that age I was extremely fascinated by insects and since then I have acquired other interests such as looking at fungi, moths and the occasional bird.

What are the best bits? The best bits are the

excursions because I am bound to find something I've never seen before or learn a new fact by asking around.

What is your most memorable sighting?

My most memorable sighting was at the RSPB Skinflats reserve on the 16th November this year and the sighting was of a pair of kingfishers.

Who inspires you most in the natural history world?

The people that originally inspired me in the natural world was David Attenborough and Gerald Durrell. But more recently people such



as Chris Packham have inspired me once again by being so enthusiastic about the subject.

How do you see the society evolving? I feel the society is slowly but surely evolving into a more modern light with the use of social networking. The introduction of this made sharing findings and the passing on excursion/event information much easier.

How could it be more appealing to young people? Even though I feel that this is my thing, because I haven't met anybody my age

that is as interested as I am, I do also feel that younger people need to be encouraged to join. The only people that I see that would be able to make use of the society and attend excursions are people of university age, simply because they are more likely to show an interest in the various fields on offer. Having closer links to University and college study groups and possible links to local primary schools in order to try and get people involved at a young age.

Invasive Non-Native Species

Over the years a series of new plant species has been introduced to the UK as ornamental garden plants that had been collected from around the world, and eventually became what are known as garden escapes. The most common examples of invasive non-native species (INNS) are Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum*, few flowered leek *Allium paradoxum*, salmonberry *Rubus spectabilis* and Himalayan balsam *Impatiens glandulifera*.

Japanese knotweed was introduced to the UK in 1825 as cattle fodder and as an ornamental plant. It was reported in 1886 as a garden escape and had become established by the 1940s. The plant is typically found adjacent to rivers. Japanese knotweed is a serious problem as its roots can damage roads, concrete structures, foundations and drains.

Giant hogweed was brought by the Victorians, as an ornamental garden plant, to the UK from the Caucasus Mountains. It is found along river banks and due to its size it shades out the native flora which in turn increases the rate of erosion on the banks. When the sap comes into direct contact with skin this can cause severe blistering.

Few flowered leek also originated from the Caucasus and Iran, and was originally introduced for cultivation in 1823. By 1849 it was recorded in the wild. The plant produces bulbs that are transported by waterways, vehicle tyres and by animals. The bulbs carpet waterways and woodlands and prevent the native plants from flowering.

Another less well known species that can be found on Corstorphine Hill is salmonberry. This plant was introduced from the west coast of America in 1827 for ornament and to provide dense cover for game. It had become invasive by 1899.

Himalayan balsam was introduced from the Indian subcontinent in 1855 as an ornamental garden plant. It can be found along river banks, in parks and wasteland. The balsam out competes native plants with its size and denies them light. Bees are very attracted to it because of the abundance of nectar and the pollination of the native wildflowers is reduced. It is important to remove the plants before the seed-pods mature, explode and disperse their seeds over a wide area. As the seeds can lie dormant in the soil for several years checks should be made each year to remove new growth.

My experience of removing Himalayan balsam from Davidson's Mains Park with my sister is that the work is easy at first but becomes progressively harder as time goes on and as one small section of ground is cleared, more of the balsam reveals itself. At both events in the park there was a big turnout of local people supported by The Trust for Conservation Volunteers. This group of really friendly and approachable people turned a fairly labour intensive day into something more enjoyable and fun.

Fraser Donachie

What the Edinburgh Natural History Society means to it's members

The Edinburgh Natural History Society ENHS has given me great pleasure since I joined in 1998, just after my husband died. I enjoyed so much the excursions, holidays and indoor meetings that I frequently attended. I would like to thank all the kind and friendly members who accompanied me when on the various activities. During the last year, I have had to stop coming to join you all due to

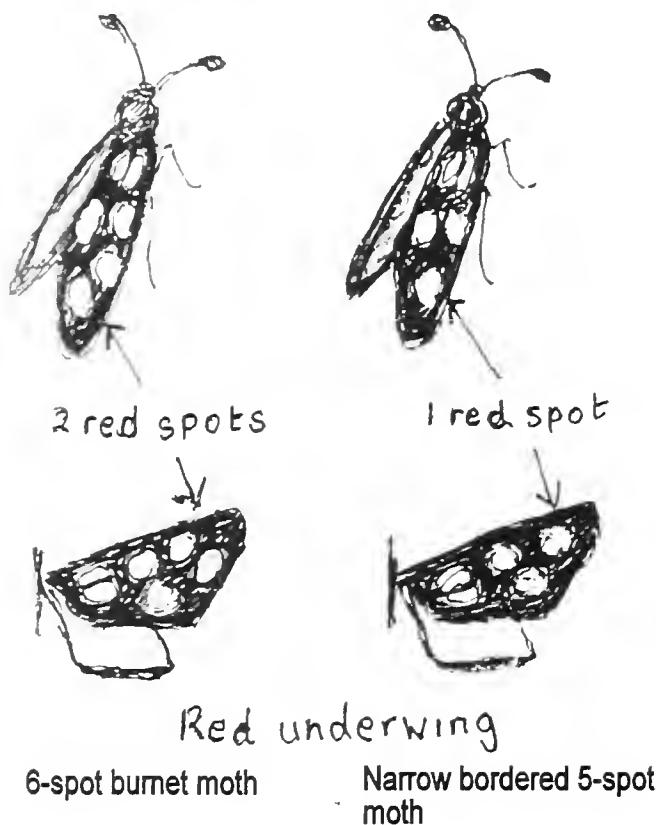
an arthritic knee and my decision to stop driving to Edinburgh and back to North Berwick in the dark at night. I get scared that I might collide with cyclists or pedestrians who seem to wear dark clothes, as is the fashion, with no warning colours and forget to put on their cycle lamps. However, I continue to work as a regular and frequent volunteer at the Scottish Seabird Centre in North Berwick and have begun to study and write about the seashore on my doorstep. This has opened up a new world for me. At weekends, I can be found on the viewing and telescope decks, welcoming members, enrolling new members and showing their children the collection of beach items that I have collected over the past year. I am gradually increasing my knowledge of this wonderful seashore world. I would love to see you if you come to the Seabird Centre between 2pm and 4pm on most Saturdays or Sundays.

Mary Tebble

Many congratulations to Mary who raised £2,400 for the Scottish Seabird Centre with her sponsored Wildflower Hunt 2011. She recorded as many different species as possible of wild flowers in bloom in the Lothians between 1 March and 31 October 2011. Mary produced and sold a booklet to raise the funds, http://www.seabird.org/user_files/file/Wild_Flower_Hunt.pdf.

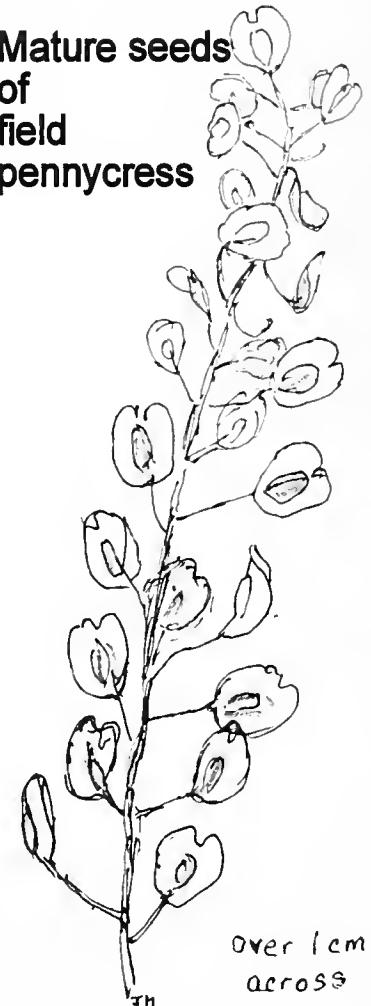
Mary was assisted in her hunt by ENHS member Jackie Muscott, Vice County Vascular Plant Recorder for West Lothian vc84. Jackie's meticulous methods and willingness to share her knowledge accounts for the little group of members trailing behind many ENHS excursions. Jackie has recorded over 200 000 observations, has a vast personal collection of data and seemingly photographic memory of all the sites she has visited. Nothing seems to dampen her enthusiasm to make a record of all her adventures in the countryside – not even torrential rain.

The Narrow-bordered Five-spot Burnet Moth *Zygaena lonicerae*



This attractive red and black day-flying moth was first noticed at Aberlady a year or two ago, but I first came to grips with it on a Botanical Society outing last July. Unfortunately, you need to get a really good look to distinguish it from the very similar six-spot burnet *Zygaena filipendulae* which is common in the area. We recorded a number of each species, but some whizzed past too fast to be identified. This year I was able to join the ENHS visit to Blindwells the old opencast mine near Cockenzie power station where bee

orchids *Ophrys apifera* were discovered last year. Bee orchids were still present, but so were a lot of burnet moths, just emerging from their pupae and therefore beautifully fresh and very quiet. I examined as many as I could and all were five-spots. I was surprised, as there are plenty of six-spots at Longbiddry Bents nearby, but when I checked on the larval food-plants I discovered five-spots eat meadow vetchling *Lathyrus pratensis* and clovers *Trifolium spp*, all present at Blindwells. The six-spots, by contrast, are fixated on birdsfoot trefoil



Lotus corniculatus which, curiously, is absent from the site, and this accounts for their absence too. Incidentally six-spot burnets contain cyanide, hence the red and black warning colouration, and it seems the caterpillars do not thrive unless their food plant also contains cyanide. The amount of poison in birdsfoot trefoil seems to be variable, but best not to eat too much of it, or the moths.

Jackie Muscott

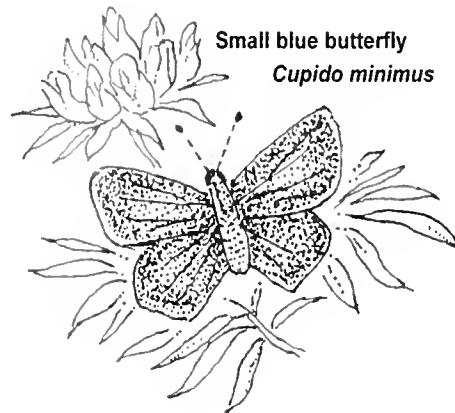
Addendum: Later in the year I visited Blindwells again. The large pond had dried out around the edges leaving a lot of damp soil busy growing weeds of various kinds, including field pennywort *Thlaspi arvense* with its large round seeds. There was plenty of water left however and plenty of common darter dragonflies *Sympetrum striolatum* sunning themselves round about.

Jackie Muscott

Reintroduction Small Blue Butterfly

Article in the Metro regarding the successful reintroduction of the small blue butterfly *Cupido minimus* to the Gailes Marsh Reserve.

The butterfly became extinct 30 years ago and the Scottish Wildlife Trust SWT and Butterfly Conservation have been working for several years to transfer small blues, the smallest British butterfly, from a site in Moray to this SWT reserve near Irvine. Their primary larval foodplant is kidney vetch *Anthyllis vulneraria* and adult foodplants introduce bird's foot trefoil *Lotus corniculatus* and other vetches.



Joanie McNaughton

Cockchafers – an elegy

One of the surprising finds on the ENHS trip to Glen Lednock on 25 May was a cockchafer or Maybug *Melolontha melolontha* with a damaged wing-case.

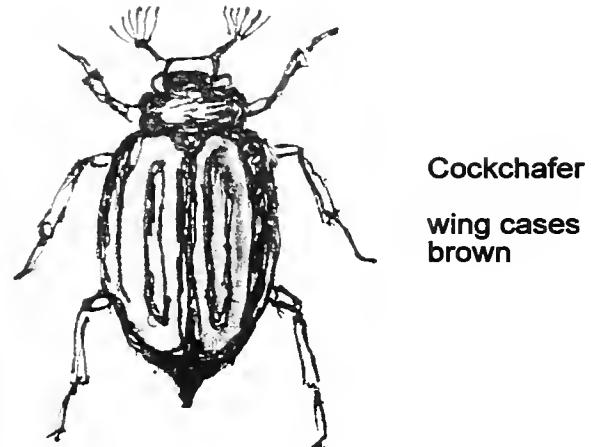
Cockchafers are large brown beetles with bodies about an inch or 2-3 cm long, and rather impressive antennae, which inhabit woods, hedges, trees and gardens and swarm around trees in the evening. I hadn't seen one since I was a child. We lived in a strip development beside the main road just outside Leicester. At the back was a spinney with fields beyond, and in front across the road, the grounds of a big house. With the war on there was little traffic on the road and we were effectively in the country. In summer spotted flycatchers *Muscicapa striata* pirouetted in the trees at the bottom of the garden, and sometimes a cockchafer would fly through the bedroom window and racket about from wall to wall until it went quiet. We would find it and evict it in the morning.

In the spring my brother and I would pick sweet violets *Viola odorata* in the spinney, and look for the first daisies *Bellis perennis* in the fields. Later in the year local lovers would make nests in the mowing grass and disarrange the haycocks, to the fury of the farmers.

The beautiful damp meadow at the end of the road was the first to go in the post-war housing boom. It had cowslip *Primula veris* and oxeye daisies *Leucanthemum vulgaris*, quaking grass *Briza media* and yellow rattle *Rhinanthus minor*; and best of all greater burnet *Sanguisorba officinalis* which was rare. It all disappeared under council housing – not that it would have survived the post-war agricultural revolution anyway: it would now be silage. Eventually all the fields were built on, the road was duelled and became much busier, and the big house was replaced by council offices with a large car park.

There are no flycatchers now, and no Maybugs blundering about in bedrooms on summer evenings.

Jackie Muscott



Cockchafer
wing cases
brown

Observations 2013

The following observations are highlights of the Year 2013 and include unusual organisms, unusually early or late sightings and those of significant importance to the observer.

Month	Date		Initials
January	Kingfisher at Musselburgh boating pond		MW
	1 After a year of rain, Blackford Pond flooded. Ducks swimming over the surrounding low railing. Water running down the path above from a spring which appeared during the 'summer'		JMt
	7 Great northern diver at Musselburgh		BC
	9 Water pipit at Barns Ness		BC
	10 Blackcaps regular visitors to garden		JmcN
	11/12 Brambling amongst chaffinches and siskin in birch		JmcN
February	Young long-tailed tits in garden feeder		MW
	3 Starling impersonating a willow warbler		JmcN
	13 Black guillemot at Prestonpans		BC
	16 Juvenile common crane at Knowes Farm, near East Linton		BC
March	Nuthatch in feeder at Hermitage of Braid		MW
	1 Thorneylee, Walkerburn a goshawk flew over the viewpoint		TD
	2 At Morton Lochs a large plastic wave form by the path commemorating an ancient tsunami which engulfed the area		JMt
	3 A woodcock flushed at Penicuik Woods		JMt
	5 Chiffchaff singing at Lochore Meadows		JmcN/KW
	7 Green sandpiper, Cammo		BC
	10 A brambling joins the usual chaffinches in the garden		TD
	11 Today we dig through snow to the main road at Lasswade		TD
	23 Otter fishing by hide at Bawsinch		JmcN
	28 Pair gadwall at Bawsinch		JmcN
	29 Long-tailed tit pair and two pairs siskin in garden		JmcN
April	Green woodpecker calling Corstorphine Hill		MW
	Pipistrelle bat by Neidpath Castle		MW
	Mass of toads at Musselburgh boating pond		MW
	2 Coots and swans nesting at Blackford Pond despite the cold. The swans raised 5 young but few coots survived the rats and lesser black-backs attracted by the bread, chapattis, fed to ducks		JMt
	3 Drake surf scoter at Port Seton		BC
	6 At Blackhope, Moorfoots a black grouse feeding by the road		TD
	13 Spring at last. Warm enough to eat sandwiches in comfort by Whiteadder Water – and a small tortoiseshell butterfly seen		JMt
	18 A single redpoll joins the siskins at the bird feeder		TD
	26 Lesser black-backed gulls mob a heron on Fountainhall Road		JMt
May	2 Wood warbler at Drem		BC
	4 Toothwort <i>Lathraea squamaria</i> by tunnels in Dalkeith Park		JMt/JMy/MC
	12 Heard a cuckoo, only time this year, at Red Moss with TWIC		JMt
	16 Two fox cubs in back garden and then three during June		JmcN
	17 Swifts hawking and screeching over Relugas Road		JmcN
	27 Swifts arrived at Warrender Park Road, about a week late		JMt
	25 A longhorn beetle <i>Rhagium mordax</i> and a red kite, among the long species list from Devil's Cauldron wood at Glen Lednock, Comrie. Slow worm crossed our path		DA/MW

June	Kittiwakes at Dunbar Harbour 4 Woodhall Dean – two pairs redstarts and a singing male 10 Cliffs of Rubha Coigach, Achnahaird, over 30 northern eggars 16 First palmate newt in garden pond after eliminating goldfish 24 Drake ring necked duck at Whitesands quarry near Dunbar 26 At Almondell a spotted flycatcher and kingfisher 30 Several males of two species of cuckoo bumblebee <i>Bombus sylvestris</i> and <i>B. campestris</i> flying continuously at ankle height by Corstorphine Hill tower. Dave Goulson calls this 'hill-topping' and may be a mating strategy	MW NC/KI NC/SCC TD BC MW DA
July	Short eared owl under attack by curlew, Lammermuirs Fifty plus sanderling on Aberlady beach 1 White faced darter at the Moss of Achnacree, nr Connel, a new record for this 10km square 3 In Atlantic hazel woodland at Balluchuan, Seil, hazel gloves <i>Hypocreopsis rhododendri</i> , glue fungus <i>Hymenochaete corrugata</i> and lichenised fungi rare in the east. 7 Buzzard mobbed by crows in Blackford Glen. Fruit of bird cherry <i>Prunus padus</i> severely affected by the fungus <i>Taphrina padi</i> causing 'pocket cherries' 10 Black cock above Glen Quaich, also red squirrel 12 Four or five red squirrels at feeding stations, plus a spotted flycatcher, at Cluny House Gardens near Aberfeldy. While Cluny looks after its wildlife, the adjacent estate shoots it. 18 Aberlady Bay small skippers in abundance 30 My only comma butterfly this year near Redhall Garden Centre 30 Leadburn Community Woodland black darters on the peat pools and by Bush Estate House common darter dragonflies mating 31 Two Wood sandpipers at Musselburgh	MW MW NC/SCC NC/SCC JMt JmcN DA TD JMt NC BC
August	From the Teviot bridge near Kelso we watched an otter 3 Identified filbert (or Kentish cob) <i>Corylus maxima</i> on the Union Canal near Linlithgow – much bigger nuts than hazel 6 Greenshank at Musselburgh Scrapes 8 On stoney beach south of Port William found sea kale, bladder senna, carline thistle, wild teasel and burnet rose. 10 Two Little egrets at Aberlady 11 Svenssons copper underwing moth in the house, verified NC 13 Skateraw and Pettycowick, St Abbs revealed peacock, small tortoiseshell, painted lady, wall brown, meadow brown, ringlet, red admiral, small copper, common blue, grayling and large, small and green-veined white butterflies. At Pettycowick a cliff-side stand of hemp agrimony attracted painted lady, wall brown, red admiral, small copper and grayling butterflies. Notable vascular plants at Skateraw were Scots lovage and yellow horned poppy and at St Abbs were kidney vetch, rock rose, roseroot, spring sandwort, hemp agrimony, meadow oat grass. Birds included in passage were hundreds of gannets, dark phase Arctic tern, a bonxie and 5 Manx shearwaters	MW/LB JMt TD NC/SCC BC TD TD/NC
	14 At Leadburn were comma and peacock butterflies 16 Grey chi moth on house window, identified by NC 22 More hill-topping male bumblebees, <i>Bombus lucorum</i> and <i>B</i>	TD TD DA

August	22	sylvestris on East Cairn Hill. Spruce logs that cover wetter parts of the path from Listonshiel to the Borestone were infested with flying ants	
	25	Musselburgh Scrapes – little stint 2, black tailed godwit 7, greenshank 4, snipe 3, ruff 12 and a wood sandpiper Aberlady Bay – little egret 5 Gosford Bay – red necked grebe	TD/NC
September	18	Grey partridge, curlew sandpiper and snipe at Musselburgh	MW
	28	A good colony of melancholy thistle <i>Cirsium heterophyllum</i> on a track by Philpstoun Bing	JMt
		Sandpiper curlews newly arrived at Musselburgh Scrapes still in red breeding plumage	TD
October		Scaup at Musselburgh	MW
		Nuthatch at Lyne Station, Peebles	MW
	1	Blackgame – single hen at Blackhope Byers then family party of 2 female and 3 male all immature north of Pipers Grave	NC
	4	Juvenile long tailed skua at Musselburgh	BC
	10	A ruff and a reeve at Aberlady Bay bridge	TD
	13	Two feathered thorn moths in our bedroom, identified by NC	TD
	20	At Cockmuir, lying on the grass, a dozen golf-ball-sized lumps of a jelly-like substance looking like icy slush: Wikipedia showed many similar examples and diverse explanations but no definite identification.	TD
	2	Four whitefronted and 11 barnacle geese still present at Musselburgh Scrapes a week after their arrival	TD
	4	A plant of prickly sedge <i>Carex muricata</i> ssp <i>pairii</i> in the grounds of Astley Ainslie	JMt
November	9	At Kerse of Kinneil recce for next week's excursion, we saw a whimbrel fly off from the mudflats, but not on the day itself	SLD/TD
	12	Leithen Lodge, by Innerleithen a red squirrel in the garden	TD
	12	Temple Quarry, Midlothian 100+ fieldfares on roadside bushes	TD
	14	Saw and heard flock of goldcrests close up, Blackford Glen	JMt
	16	A Woodcock flew low overhead at Kerse of Kinneil	JMt LB
	late	Fieldfares and redwings in cherry tree last half of November	JmcN
December		Goldcrest on grass verge, Malleny	MW
	1	In flight Corstorphine Hill a queen buff-tailed bumblebee <i>Bombus terrestris</i> . This is more likely to be an individual that had failed to hibernate properly than evidence of an overwintering nest, such as is found in southern England	DA
	1	Many finches in garden	JmcN
	2	Swimming down-stream near the old ferryman's cottage at Cramond was a common seal with a large fish in its mouth.	DA
	4	Many Midlothian trees brought down by gale force winds	TD
	5	Tidal surge inundates bridge at Aberlady Bay	TD
	9	Adult fox scavenging bird food in garden	JmcN
	11	Kingfisher at Royal Botanic Gardens Edinburgh pond	SA
	11	Colourful male mottled umber moth on house, identified by NC	TD
	11	A peregrine carrying a large mammalian prey at Cockenzie Power Station. Pied and grey wagtails at Esk mouth, Morrison's Haven, Port Seton and Cockenzie harbours, Kilspindie, Seton sluice beach and Luffness salt marsh. Six twite at Kilspindie at	TD/KI/NC

December		13 grey partridge 1km east of Drem and 7 whooper swan in fields around chapel GR NY5381	
	13	Female king eider, Fidra	BC
	15	Aerobatic peregrine falcon over Newbridge roundabout	DA/SA
	18	Inchkeith grey seals and pups	SdP
	24	Male blackcap in garden, later than usual. Male siskin	JmcN
	31	First male great-spotted woodpecker in garden. Feeding battle between mistle thrush and woodpigeon. Song thrush in garden	JmcN
DA David Adamson SA Sarah Adamson LB Lyn Blades MC Mary Clarkson BC Bill Clunie SLD Sarah Louise Davies TD Tom Delaney KI Kevin Ingleby JmcN Joanie McNaughton JMy Jean Murray JMt Jackie Muscott SdP Stan da Prato KW Katherine White MW Molly Woolgar TWIC The Wildlife Information Centre			

Excursion and Meeting Reports

Over the winter there are monthly outdoor excursions and indoor meetings. The summer sees one or two outdoor meetings per week. During 2013 Vladimir Krivtsov enthusiastically set up and ran workshops at Vogrie Country Park using Vogrie House facilities to identify organisms in comfort. The specimens studied were either brought along by members or collected around the country park.

Workshops - Vogrie Country Park

24th November 2013

Leader Vladimir Krivtsov

'I haven't learnt a thing!' declared Simon, who had been hunched over his own microscope looking at fungi most of the afternoon, in answer to my question at the close of the workshop. The response was doubly surprising since Simon showed himself to be both knowledgeable and attentive, and keen to help others in their enjoyment of the fungus world. He went on to explain laughingly that on this workshop he had been assailed with so much that was new, or things learned long ago and partially forgotten, that his brain was still spinning. Which sums up a very successful fungus foray and workshop organised by the patient and knowledgeable Vladimir Krivtsov at Vogrie. Vladimir's workshop did not range over the whole country park; instead, we stayed close to the house in Beech Walk, where we found the specimens listed below.

Of the larger specimens,

Clouded funnel cap *Clitocybe nebularis* in profusion

Lilac or rosy bonnet *Mycena pura* or *rosea*

Butter tough shank *Collybia butyracea*

Rickstone funnel cap or monk's head

Clitocybe geotropa

Fawn shield and knacker's crumpet *Pluteus cervinus* and *P. salicinus*

Jew's ear *Auricularia auricula-judae*

Wood blewit *Lepista nuda*

Olive oysterling *Panellus serotinus*

Pale Brittle Stem *Psathyrella candolleana*

Velvet shank *Flammulina velutipes*

Shaggy stale-head *Pholiota squarrosa*

Common puffball or devil's snuffbox

Lycoperdon perlatum

Ink cap *Coprinus sp* a dung fungus
Bonnet mycena *Mycena galericulata*

and of the smaller stuff,

Nectria cinabarina

Hypocreopsis citrina

Many zoned bracket *Trametes versicolor*

Orange peel fungus *Aleuria aurantia*

Dead man's finger *Xylaria polymorpha*

Brown purple drop *Ascoryne sarcoides*

Large purple drop *A. cylindri*

Wood mulberry *Bertia moriformis*

Shield lichen *Parmelia sulcata*

Oak moss *Evernia prunastri*, white underside

Tree moss *Pseudevernia furfuracea*, black underside

There was some discussion, and indeed confusion, over whether specimens should be referred to by their common name or their academic name. Most of the academic names, whether of Latin or Greek origin, were applied in the late 18th or 19th century, and it is clearly desirable for the purpose of cataloguing and international discussion that each fungus has its own specific name. For the amateur it helps if both academic and common name given as a clue to the appearance of the fungus. For instance, *Pluteus cervinus* gives us a deer association, derived from the antler-like protrusions on the cap, and the common name is fawn shield cap, a helpful case where academic name matches common name. So too that fungus we found in such profusion with a cream to grey green cap and shaped like kitchen funnel the clouded funnel cap *Clitocybe nebularis*. *Clitocybe* means sloping head, so funnel-shaped and *nebularis* means relating to mist. But neither wood blewitt or *Lepista nuda* give us any apparent clue to the familiar and edible purple fungus.

Sometimes one feels there is an undercurrent of scorn for the common name, but in truth, most are helpfully descriptive and probably of great antiquity. Of course, some common names defy modern understanding, for example, *Pluteus salicinus* is called Knacker's crumpet; who can explain that? but all this diversity, and obscurity, are part of what makes up the study of fungi so rewarding.

The afternoon was largely devoted to laboratory-style examination and closer identification of species, with Simon, Stephen and Susan helping those who were not used to the microscope. In particular, there was much examination of the smaller fungi or lichens so common in this area.

At the hobby level the identification of a species is clearly very important if 'collecting for the pot'. Death through eating poisonous species in this country was highlighted in 2008 when deadly webcap was mistaken for chanterelle requiring kidney transplants for two of the eaters, including the author Nicholas Evans. Good practice was emphasised by Ruby from South Africa who insisted that edible specimens were kept separate from other specimens in the collecting basket.

There was some discussion over what had been lost in the fungi world. So many fungi are associated with traditional cures, like the orange peel fungus in China. But what for and are its powers still valid today? The Cossacks of the Don were famous for their use of herbs and fungi in medicine, which Tolstoy reports in a short story in 1852. One fears that only 150 years later much of that local knowledge has now been lost.

Vogrie Country Park is an excellent place for such workshops with over 250 acres of woodland and 11 miles of signposted paths. In Vogrie House there are rooms available for study and an excellent cafeteria. Many thanks to Vladimir of The Edinburgh Natural History Society for organising and ably leading the workshop. The one disappointment is that, for such an interesting event, there were only six of us who turned up. The last word on this enjoyable and wide ranging fungus workshop must go to Ruby, who collected up a carrier bag of common puffball and clouded funnel cap to eat. When asked how she would cook them, expecting something along the lines of frying a few minutes in butter and garlic, she responded that her mother always told her to cook fungi like meat, half an hour of good, honest boiling - and that took care of any poison!

Hugh Lockhart

30th November 2013

Leader Vladimir Krivstov

About a dozen souls gathered at Vogrie House for a self study workshop essentially focussed around Fungi, although some of those present had their eye on other groups and various lichens and bryophytes also made their way into the final tally.

First order of the day was to assemble in Vogrie House and wrangle various microscopes and field guides into position in a comfortable education room that provided a home for the day. Everything in place and the odd last minute coffee swallowed, we headed out to the grounds and began to assemble a collection of fungi of various types from the vicinity of the house.

After a while, people started to drift back to the lab and unpack their treasures. The specimens were turned over, sniffed, carved, squashed, examined, discussed and keyed-out while lunch and biscuits were consumed at a safe distance at the other end of the room - more or less. One by one the varied fruits made their way to empty tables and labelled as they were given identities until they over-ran

the first table and expanded onto a larger replacement. In the middle of the room a table of labelled lichens started to take shape too, and a couple of galls into the bargain.

By the time we had tidied up a bit at the end of the afternoon, a smorgasbord of goodies was left for the rangers, as per their request. Thanks go to those involved in the organisation, and the provision of biscuits, and to the folks at Vogrie House for allowing us the use of the facility.

Ali Shuttleworth

Outdoor Excursions

Abercorn to Blackness

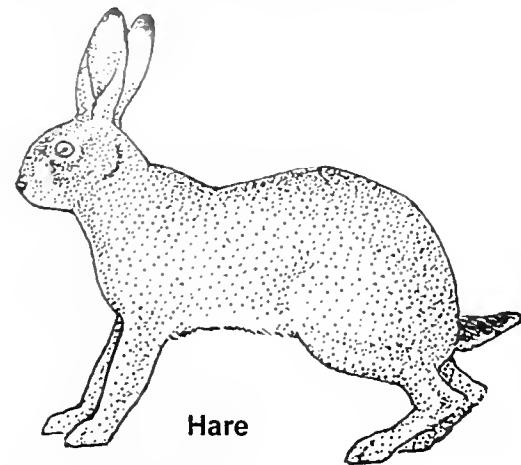
26th January 2013

Leader David Adamson



Twelve set off from the historic church of Abercorn on a day of sunshine, intending to follow the recently-extended National Cycle route through West Shore Wood. Our goal was Blackness Castle, jutting out into the Forth like a great stone ship. There was no snow and very little ice, in contrast to the white landscape across the estuary. These woods are part of Hopetoun Estates, and we intermittently heard the gunfire from the estate's shooting parties somewhere to the south. A short distance before Blackness is a stretch of mudflats, and here Jackie pointed out the insignificant strands of dwarf eelgrass *Zostera noltei*. This is a favourite food of the many wigeon ducks that overwinter along these shores. Among the other ducks seen on our coastal walk were merganser, goldeneye, eider and mallard, and Tom was able to pick out a red-throated diver some distance offshore. A buzzard that left the wood to fly over the mudflats scattered the many redshanks and oystercatchers feeding on the water's edge. In a wedge of scrub and grassland lying between the wood and shore were a goldcrest and many chaffinches; an unseen vole left it to the last second before darting into its tunnel as my boot descended.

The original Blackness Castle was built around 1449 for George Crichton, cousin of the Chancellor Crichton whose name is associated with the treacherous death of the young Earl of Douglas. Not long after this, the king wrested the castle from George Crichton, but it was rarely occupied by the royal household. Instead it was mainly used as a prison and an ammunition store, and last played a military role during the First World War. The castle was repaired by the Office of Works in the inter-war period. Today we were grateful to the Historic Scotland curator for allowing us to lunch at the castle's picnic tables in the castle grounds, unsuccessfully seeking shelter from the wind that seemed to follow us around the castle wall.



After lunch we retraced our steps until we reached the point where we had left the wood. We then crossed to the southern side of the wood, following a muddy perimeter path bordered by a prairie-sized stubble field. A small piece of soft rotting wood was coloured turquoise by the cup fungus, *Chlorosplenium aeruginascens*. A roe deer crossed our path into the field, and a brown hare posed long enough for most of us to obtain a good view. We finished our outing by visiting Abercorn churchyard, and entered its tiny museum to see the hogback Viking stones, contrasting with the delicate tracery and carvings on the broken Anglian crosses.

David Adamson

Morton Lochs

2nd March 2013

Leader Wilma Harper

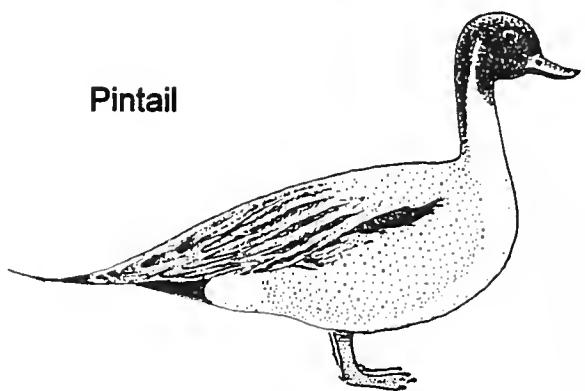
Having led a successful visit in autumn I decided it would be good to go back to Morton Lochs in the spring. Morton Lochs is a National Nature Reserve and one of the first designated in the UK. As well as the bird interest it has phenomenal numbers of frogs and toads in the spring. We were lucky with the weather and enjoyed a clear and pleasant day but sadly the amphibians were not in evidence, probably as it had been a cold spring. We had obtained the key to the high hide which gives a good view across all of the bigger of the 2 lochs. It was real luxury to sit in a hide having lunch spotting water birds on the loch. We had teal, coots, dabchick, heron. The top ticks however were 2 pintail and a gadwall.

When we did the recce we had met Derek Robertson an artist who was invited by Scottish Natural Heritage to be artist-in-residence at Tentsmuir National Nature to celebrate Year of Natural Scotland 2013. His work from the residency is at <http://www.memoryoftides.com/>

After lunch we split into 2 groups to get to Tayport. Those looking for a leg stretch headed through some young pines and across the golf course while others chose to drive round. The Tay Estuary is a major wintering ground for eider and we spotted several thousand, but all well offshore. We walked along the shore and back into the forest to complete the loop back to the cars. On the way home some of us stopped at Thai Teak, a log cabin by a farm which had diversified into oriental nick-nacks. The tea and cakes however were excellent!

Wilma Harper

Pintail



Bawsinch and Duddingston Loch

23rd March 2013

Leader Joanie McNaughton

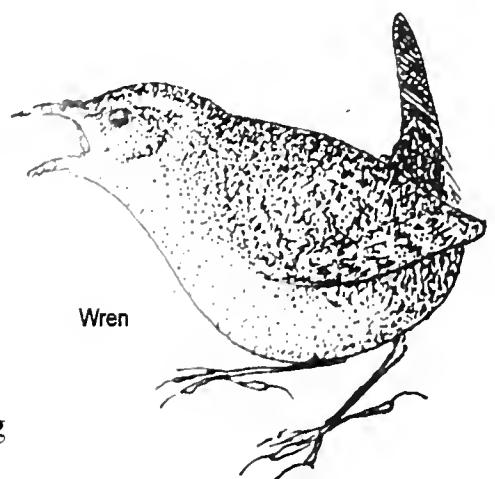
The forecast adverse weather conditions and potential closure of the Forth Road Bridge, meant that we did not visit Lochore Meadows and went to Bawsinch instead. It is difficult to imagine the contrast with the ENHS visit exactly a year ago. Then it was the sunniest and warmest March on record. This visit was the coldest March on record, with persistent easterly winds. With a recorded temperature of 1° and a wind speed of 19+mph, the wind chill factor was reported at -6°.

Reaching the hide the first thing seen was an otter fishing right in front of us. I had not seen the regularly reported otters on Duddingston Loch so I was delighted to see it at long last. The excitement was even greater when David then told us it was his first otter. Excitement over, we studied the loch and found goldeneye and tufted duck, mostly paired, and mute swans, displaying and fighting for territory, but not to the extent of battle witnessed last year. Roosts of herring gull in the middle of the loch were joined by six newly arrived summer visiting lesser black-backed gulls. This time we only saw one dabchick and also a solitary cormorant.

Exploring the Reserve, we saw siskin, a pair of bullfinches flitting through the branches, coal, blue and great tit, robin and wren, jackdaw, and a great-spotted woodpecker was seen by one member. Close to the herony we scanned five seemingly empty nests unless the occupiers were hunkered down out of the wind. Also seen from here was one male Teal, but no sign of the reported pair of gadwall. However, a few of us returned some days later, and found the pair. Unfortunately we saw no raptors, but heard a single buzzard mewing above the treetops.

The reserve has undergone a programme of tree-cutting and clearing out invasive non-native species.

Wren



Sycamore is being ring-barked; Australian swampweed and pygmy weed from New Zealand are being cleared from the ponds; hawthorn is being cut back in sections as it is getting too scrubby for warblers; red stem American dogwood is being cut twice a year and treated to prevent regrowth; Himalayan balsam and Japanese knotweed are under control or almost gone; giant hogweed keeps growing back but is easy to keep on top of.*

The species listed below incorporates what we recorded from the excursion itself and the return visit.

Botanical: three *Petasites* sp – white butterbur *P. albus*, the only one in flower, giant butterbur *P. japonicus* and common butterbur *P. hybridus*, both in bud.

Bryophytes: Only common types were identified: *Bryum capillare*, *Brachythecium rutabulum*, *Calliergonella cuspidata*, *Rhizomnium punctatum*, *Kindbergia praelonga*, *Plagiomnium rostratum*, *Hypnum jutlandicum*, *Fissidens* sp, and either *Ulota* sp or *Orthotrichum* sp.

Fungi noted were the black nettle rash *Leptosphaeria acuta* and the red/orange *Calloria neglecta*, both common on dead nettle stems in spring. Growing on a deciduous log were hairy curtain crust *Stereum hirsutum* and bleeding broadleaf crust *Stereum rugosum*, as well as a rhizomorphs of other fungi. On a fallen conifer trunk was bleeding conifer crust *Stereum sanguinolentum* and a black blotchy fungus on a fallen deciduous twig turned out, when moistened, to be witch's butter *Exidia glandulosa*. Common mazegill *Datronia mollis*, growing on attached deciduous branch and beech Barkspot *Diatrype discoformis* on a fallen twig. A difficult *Peziza* was examined by Mary Clarkson and Elizabeth Farquharson who were 99% certain that it was blistered cup *Peziza vesiculosa* which had been affected by the weather.

Joanie McNaughton with thanks to D Adamson and V Krivtsov for Mosses; M Clarkson for Fungi

*noted from ENHS Journal 2012 item dated 17 March 2012.

Tweed Walk Mosses

6th April 2013

Leader Jean Murray

Winter had been slow to let go and there was still snow on the higher part of my planned route. A good turn out was pleasing but I had a feeling some would not be happy to look at mosses for long. You can always rely on fallen logs for cypress-leaved plait-moss *Hypnum cypresiforme* and rough-stalked feather-moss *Brachythecium rutabulum*. If the wood is rotting it's worth looking for liverworts too and we did find rustwort *Nowellia curvifolia* which can turn logs crimson.

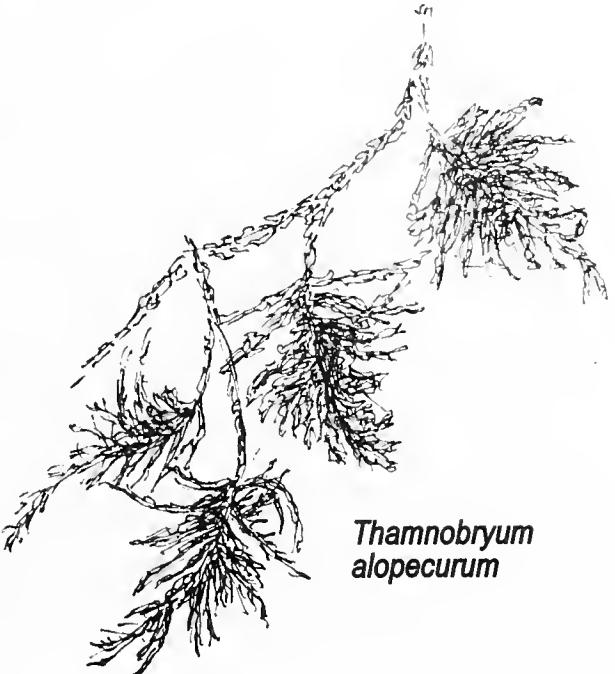


Town hall clock *Adoxa moschatellina*

I was determined to keep the party together until we reached the area where I knew we could find moschatel *Adoxa moschatellina* if we raked among the fallen leaves. It's also known as town hall clock because of its 4 flower faces plus 1 on top but here not yet fully open.

I had meant to turn uphill after that but the sun was shining and it was almost warm so the decision was taken to continue along the river. That was when the bryological split really began to show. A core of

Eventually we caught up with the others already having lunch where there were high rocks festooned with fox-tail feather-moss *Thamnobryum alopecurum* and common striated feather-moss *Euryhynchium striatum*. At that point I



Thamnobryum alopecurum

asked Neville Crowther if he would take over as leader for the main party so we could take our time without feeling guilty.

It was just as well I had because after we'd exhausted the lunch area we came across a large rock by the shore opposite Neidpath Castle with many goodies one of which was starry soar-moss *Hedwigia stellata* which grows in tufts and likes unshaded rocks. Some time was spent crawling around there and at the water's edge and we were still finding more when the others appeared on the opposite bank having returned by the next bridge. Wilma was sure she saw a bat flying below the castle perhaps disturbed by a wedding party which just added to the feeling it had been a rather unusual NATS outing. The bryologists however could not have been happier. We'd had a wonderfully productive day. David Adamson was first to produce a list and once that had been circulated, adjusted and agreed we had a total that was just 1 short of 50. Mosses can be rewarding. A full list is available to anyone interested.

Jean Murray

Ale, Eye and Whiteadder

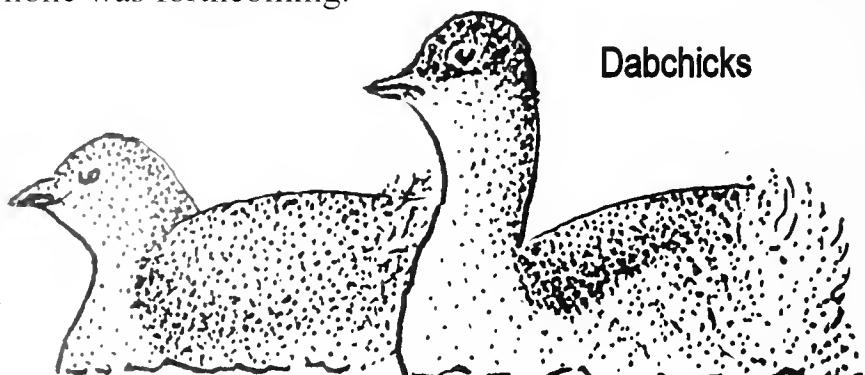
13th April 2013

Leader Tom Delaney

This excursion was planned in the hope of replicating a very successful visit to the area a year ago. Then, Tom and I were able to find many birds not common in the Lothians, including marsh tit and Mandarin duck which are extreme rarities in Scotland. These became our main targets for this day. We were pleasantly surprised by the very welcome rise in temperature and the feeling that spring was on its way at last. Seven of us met at Ayton by the bridge over the Eye Water, where many birds were in song. A garrulous crowd of rooks bustled around the rookery atop a cluster of Scots Pines. In contrast to previous days and weeks life was in full swing. My first chiffchaffs made vocal claim to their territories and nuthatches flew between the mature oaks and beeches trilling insistently. As regards plants, a really cheering sight included a beautiful patch of celandines *Ficaria verna* and sweet violets *Viola odorata* in full flower in a sunny corner by the church. The pink flower heads of common butterbur *Petasites hybridus* were pushing up through the riverbank soils. Goosanders flew powerfully down river, tree sparrows chirruped and greenfinches wheezed with song thrushes competing for air-time.

We drove down to the Whiteadder bridge east of Paxton parking by the Georgian Corporation Hotel. The first spring whitlow grass *Erophila verna* of the year was in flower and primroses *Primula vulgaris* flowered on a sunny bank by the scrub woodland. Bird song was as persistent as ever with all the common tits and finches being reinforced by song thrushes, yellowhammer and more chiffchaffs. The clicks of camera shutters greeted an amazing display of coltsfoot on a dump by the river and for those who saw it, a small tortoiseshell was the first butterfly of the year. As skylarks sang above lunch was taken by the weir on a convenient bench where salmon fishermen in chest-waders showed their skills. It was here that a pair of marsh tits were active for a few minutes prior to losing themselves in the scrub. Their colours of black, white and fawn were contrastingly clean cut. We waited in vain for a song but none was forthcoming.

Our next stop was a pond on a tributary of the Ale Water, where Tom had heard that Mandarins had been seen the day before. Pairs of dabchicks and moorhens were nice to see. A territorial greylag gander was less pleased to see Jackie botanising on its patch and almost woke the dead with its honking. So, no Mandarins. Sarah Louise was captivated by Mary's discovery of the remnants of a dead jay, with sky-blue chequered wing bars. It was quite late in the afternoon when we moved north and stopped by the Ale Mill, another tip off and probably the last chance for our elusive duck. Gangs of rattling blackbirds sorted through the vegetation as they had



Dabchicks

for much of the day, without a single note of song. We had to assume they were all migrants, assembling for their Scandinavian crossing. We amused ourselves finding mosses and lichens hoping for a Mandarin to appear; and it did, bursting out of the trees in the gorge of the Ale and flying around us in a long arc. The club-like head and its golden brown plumage even against the low sun were conclusive. Both main objectives achieved, we began to search for a possible tree nest hole, but the terrain was impassable. But we did find an unusual lichen *Ramalina fastigiata* which according to the map is quite common to the east of Britain from about Newcastle to the north coast, with a gap around the Lothian and Fife possibly where the worst of the industrial air pollution occurred. *Ramalina farinacea* which occurs over most of Britain, including the Lothians and Fife, is apparently tolerant of both nitrogen and acid pollution.

We had a last stop, also a Mandarin site, at the confluence of the Eye and the Ale Waters. Flushing a woodcock and a buzzard from the riparian woods were our only notable bird sightings, however, the vernal ground flora was bursting forth. It was not a surprise to see white butterbur *Petasites albus* which usually flowers very early. Similarly the common butterbur which usually flowers about now seemed to be on time. Perhaps they respond to day length rather than temperature. Ramsons *Allium ursinum*, dogs mercury *Mercurialis perennis* and lords and ladies *Arum maculatum* were notably growing well. Snowdrops *Galanthus nivalis* still in flower in April were pretty unusual. As for trees, alder *Alnus glutinosa* was displaying catkins and elm *Ulmus glabra* was coming into flower, so neither was unduly late, but the pussy willows definitely were, perhaps explaining the absence of bumblebees. The first and only trees seen to be in leaf were bird cherry *Prunus padus*.

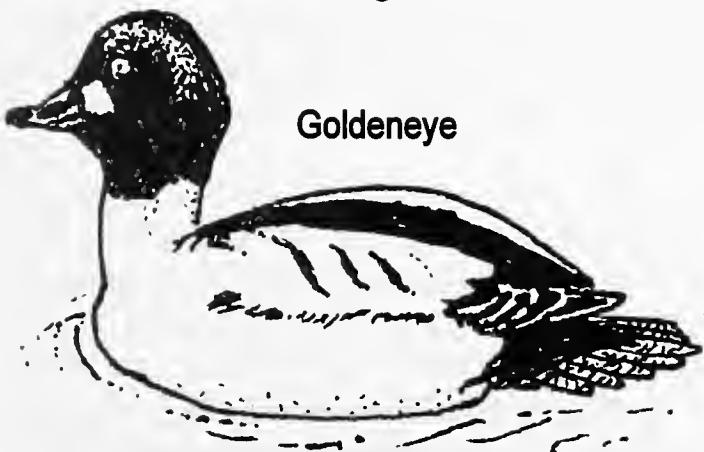
Neville Crowther with thanks to Jackie for her notes on plant-life.

Musselburgh Lagoons

20th April 2013

Leader Vladimir Krivtsov

The land east of the mouth of the Esk has been reclaimed from the sea by the dumping of power station ash from nearby Cockenzie over several decades. The infill continues at the Prestongrange end of the site. Despite its unnatural origin, Musselburgh Lagoons has become an excellent site for birdwatching, with areas of rough grassland, scrub woodland and shallow 'scrapes' with bird hides. Eighteen members crossed the Esk and followed the sheltered path from Goose Green to the boating pond. There were bumblebees on flowering currant, and peacock and small tortoiseshell butterflies fed on the nectar from the female willow flowers. The orange ichneumon flies *Ophion sp* seen on the previous day's reconnaissance were absent due to the strong wind. At the boating pond mating toads were abundant in the shallow water. The regular splashing noises were made by a wind-surfer overbalancing.



We lunched at the bird hides. Those inside the hides watched teal, shelduck, redshank and grey plover, while those sunning themselves behind the hides were entertained by the song and movement of willow warblers. Nearby were many meadow pipits and a male reed bunting. The shelter of the trees and hides was a respite from an unrelenting wind that blew grit into our eyes as we followed the sea-wall back to the mouth of the Esk. The waves may have hidden some sea-birds, but we managed to see both common and velvet scoters, kittiwakes, goldeneyes;

eiders and mergansers. A flock of grey plover skimmed the waves as they flew west from the scrapes, and turnstones lived up to their names on the rocky shoreline.

Despite the litter of polythene and dog fouling, the area remains an excellent place to view rare and common birds at all times of year. We were grateful to Vladimir for leading us, although the blustery conditions sabotaged his careful plans for re-uniting botanists and ornithologists.

David Adamson

Coldingham to Eyemouth

27th April 2013

Leader Neville Crowther

Despite a cold north easterly wind the sun shone brightly and the surf pounded noisily into Coldingham Bay. Eight of us assembled at the car park and strolled down to the shore. It was low tide and giant kelps were revealed in the trough of each wave.

Half a dozen ‘commic’ terns were diving for food, as we strolled along the small dune system to the south. Inland lesser celandine *Ficaria verna*, white deadnettle *Lamium album* and butterbur *Petasites hybridus* flowered, all two weeks later than expected.

We wandered through rock pools as we rounded Milldown Point. The zonation followed text-book precision with strikingly visible colours particularly the bands of lichens within the splash zone. There was much interest shown at the beadlet anemones in the pools.

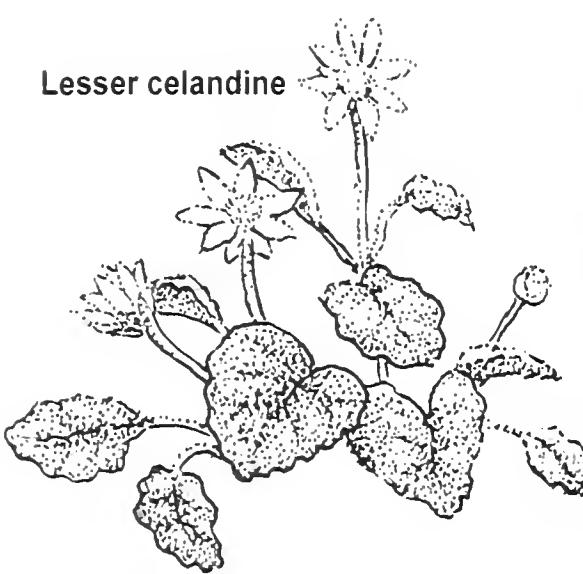
Above us the coastal grassland was mainly red fescue *Festuca rubra* and tufts of meadow oat *Avenula pratensis*, cowslips *Primula veris* and primroses *Primula vulgaris* were both present in eye catching clumps and clusters. Thyme *Thymus polytrichus* and sea campion *Silene uniflora* straggled down the rocky outcrops but the flower buds were still dormant.

We stopped frequently as strings of gannets flew low over the sea surface about 400 metres out, all going northwards back to the Bass to feed their incubating partners. Groups of 10 to 40 were to pass by, every minute or so, for the rest of the day. Splashes of bright green and yellow from marsh marigold *Caltha palustris* revealed small patches of coastal marshland which were fed from higher up the slopes. Many of these small springs confirmed that base rich water was feeding flushes of brown pleurocarpus mosses. Some of the mosses were coated white with layers of tufa. The most abundant was a calcicole moss *Palutriella commutata* with some *Scorpidium cossonii*. Not many people know that! But David did.

Our memories were very clear from 6 years ago so as we came to overlook the Linkim Shore, we searched the scrubby slopes for the rare hybrid between the two primula. It was present in greater numbers than I remembered, and perhaps more striking than either parental species – *Primula x polyantha*. Lunch in the sun sheltered beneath slopes of violets, bluebells and primroses. We were serenaded by wrens from the blackthorn scrub and Sue spotted a yellowhammer on an elder bush. It was tempting just to while away the afternoon, but Molly, searching for birds, led us along the storm beach with its scurvy grass *Cochlearia officinalis*, sea sandwort *Honckenya peploides* and curled dock *Rumex crispus*. A search found the small plants of kidney vetch *Anthyllis vulneraria*, burnet saxifrage *Pimpinella saxifraga*, meadow saxifrage *Saxifrage granulata*, but failed to find corn-salad *Valerianella locusta*.

The Fleur Burn cuts through the coastal cliff at the end of the beach and is a thick mass of scrub woodland. Before we arrived we could hear warblers singing and soon willow warblers, chiffchaff and a pair of early whitethroats had all been identified. Molly discovered a pair of kestrels and a peregrine falcon. We climbed back to the cliff top where the views seaward were spectacular. Inland the bare soil of ploughed fields was less so. We did flush a brown hare and had skylarks in song for much of the way. The geology was now old red sandstone which produced pink beaches, and Eyemouth produced an ugly cliff top caravan park which we circumvented with eyes averted. We descended into the town to meet Barry Prater with a collection of moths from his trapping at Pease Dean the previous night. It was surprising that he had caught anything as it had been so cold.

Almost all his catch were of 4 *Orthosia sp*, small and common Quaker moth, Hebrew character and clouded drab moths, along with a single brindled pug. It was a pleasant conclusion to our day.
Neville Crowther



Braid Burn 3

8th May 2013

Mary Clarkson

The section of the Braid Burn we followed this year runs through the Hermitage of Braid and behind Blackford Hill starting not far from the gate of the Braidburn Valley Park which we reached in 2012. Blackford Hill was formed of andesite lava flows which erupted from volcanoes almost 400 million years ago, the oldest rocks in Edinburgh, and its crag and tail shape was created by an east-flowing ice sheet around 12,000 years ago and this also gouged out the deep valley through

which the burn flows and laid bare the rocky crags on the north side. The ice also deposited boulder clay on the less steep south side. We again found many plants of giant butterbur *Petasites japonicus* on the banks of the burn looking just like small cauliflowers but there was no sign of any salmonberry *Rubus spectabilis* although there was certainly one specimen of this near Hermitage House some years ago. There was a good variety of ferns, near the burn, on the steep, shaded slopes and in the quarries including hartstongue *Asplenium scolopendrium*, hard shield fern *Polystichum aculeatum* and black spleenwort *Asplenium adiantum-nigrum*. The 'catch of the day', however, was a dipper near the footbridge at the east end of the gorge, in, out of and under the water seemingly unaware of its audience.

Mary Clarkson

Devilla Forest

12th May 2013

Leader Wilma Harper

A group of ten met on a damp morning and parked at Tulliallan Castle by kind permission of the Police College. Moor Loch is in Devilla Forest and was approached through a gate to the left of the car park exit. The path passed a Bore Stone – an old boundary marker, and on reaching the loch we the group followed a path until it emerged from the forest just before the cottage of Keir Farm. Belgian shepherd dog obedience training was in progress in a field opposite the cottage. A *Euonymus sp* and tree pipits were seen around the remains of a walled garden on a diversion from the circuit of the loch.

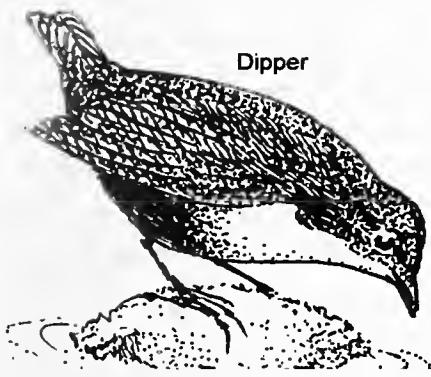
We continued on the east side of the Moor Loch to visit earthworks known as the Danish Camp. Over the loch an osprey was flying and sitting in the tall trees, however, no nest was seen. A great crested grebe sat on its nest in the loch shallows. Lunch was off the path under trees at the loch side.

Alison Ramsay

Note on Tulliallan by Wilma Harper

On entering the site there is a large number of ornamental trees. The moss covered birches were most likely to be the cultivar Young's silver birch and the path into the forest is the old carriage drive with a number of ornamental trees still remaining.

The one hectare walled garden appears on William Roy's map of 1750 and is partly used for cultivation and the remainder used as a car park. During World War II Tulliallan was the Scottish Headquarters of the Free Polish Army. Cedars were planted in the grounds by Polish President Raczkiewicz and Prime Minister Sikorski.



Great crested grebe



Binny Craig

15th May 2013

Leader David Adamson

The five who were undeterred by the late afternoon rain, and warnings about awkward slopes, were Jackie Muscott, Kathy Buckner, Sarah Adamson, myself, and Colin from Binny Plants.

Following the track west from Binny Plants car park we stopped at the mausoleum of a Captain Stewart. This was consecrated by the Bishop of Edinburgh in 1873, but has suffered from vandalism over the years, and is now a dark ruin hidden by ivy. Its walled-up entrance is approached through a carpet of kidney saxifrage *Saxifraga hirsuta*.

The rocky, up-and-down path that follows the sharp crest of a wooded ridge took us to the hill of Binny Craig. Some thanks are due to Colin for keeping this path clear of brambles and gorse, and for pointing out what appears to be an old Observer Post on the way. The Craig itself is an example of a crag and tail geological formation, like Edinburgh Castle rock and the Royal Mile in miniature. The crag part is a jagged cliff, towering above a marshy, ice-carved hollow. In geological terms, the crag is a sill of igneous quartz-dolerite rock intruding through layers of sedimentary rock, mainly oil shale. The tail slopes more gently to the east, close to another igneous outcrop, Tar Hill.

One unusual plant found on both Binny Craig and Tar Hill is meadow saxifrage *Saxifraga granulata*. Although there were many plants on the steep east slope, it was only found in flower in the western scree where sheep had not been able to graze. In this scree we also found primrose *Primula vulgaris* and dog's mercury *Mercurialis perennis*, both commonly plants of the woods. Regrettably, few-flowered leek *Allium paradoxum*, now smothers the woodland floor between Binny Plants and Binny Craig. However, several healthy plants of climbing corydalis *Ceratocapnos clavicularis*, were in flower among the gorse bushes in rocky clearings.

Apart from a five-minute shower, the weather was well-behaved, and the views from Binny Craig thrilled everyone. To the south were the Pentlands; Culter Fell and Tinto Hill sat either side of Tarbrax Bing to the south-west, and Ben Ledi and Ben Vorlich were further north and more distant. One end of a rainbow sat upon Winchburgh for all of the time that we were at the top of the Craig. So the views, the plants, and good company helped make this an enjoyable evening.

David Adamson

Davidson Mains - 90 years later

22nd May 2013

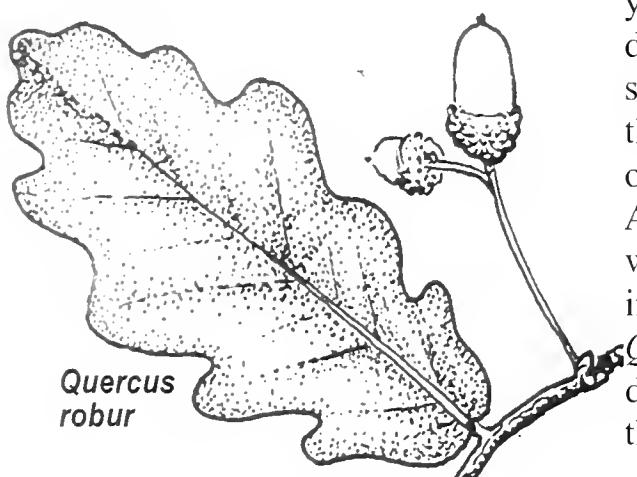
Leader Eunice Smith

In 1920 the village of Davidson's Mains and surrounding area were included in 'Greater Edinburgh' and the council of the City of Edinburgh agreed to provide the people of Davidson's Mains with 'a better park than it then possessed'. The area of parkland available had been part of the designed landscape of the estate of Barnton. The purchase was completed on 31 December 1922 and the park was opened to the public on 18 July 1923.

During Biodiversity Week in May a group from the ENHS visited the park and noted items of both botanical and historical interest. The meeting place was beside structures which used to have an important local role. The dark blue police box near, the entrance to the park, was in use until a few

years ago. For many years some local inhabitants depended on the well-tower for water which came from a spring on Corstorphine Hill. Later when we walked around the eastern and southern parts of the park we passed areas of damp ground and other water-storage tanks.

Around the beginning of the 19th century a belt of trees was planted to screen the new Queensferry Road, opened in 1826. Spanish chestnut *Castanea sativa* and English oak *Quercus robur* were introduced into the main area of the designed parkland. Some have now died or been felled but those that remain in the centre of the park are both gnarled



Quercus robur

and stately. The 'candles' on horse chestnut *Aesculus hippocastanum* are a spectacle early in the year and children delight in finding conkers in autumn. There have been recent plantings to replace losses due to age or weather damage. A blue cedar *Cedrus atlantica var glauca* has already produced a substantial cone. A maidenhair tree *Ginkgo biloba* suffered severe damage due to an attempt at a bonfire on a Guy Fawkes night but has regrown from the base. There are hopes that this tree will be cherished and become a real talking point. Tall, young trees which attract attention are two dawn redwoods *Metasequoia glyptostroboides*. These were planted in positions which respect the history of the park and mark the edge of a carriageway to the original Barnton House.

The areas of grass around some of the new trees are usually now left uncut and flowers such as ragged robin *Lychnis flos-cuculi* and broad-leaved helleborine *Epipactis helleborine* have a chance to emerge and flourish. As we left the open area and made our way along the old carriage-drive plants such as sanicle *Sanicula europaea* and woodruff *Galium odoratum* were spotted. Less welcome was the appearance of Japanese knotweed *Fallopia japonica*. Several measures have already been taken in the western part of the park to reduce the growth and spread of another unwelcome resident - Himalayan balsam *Impatiens glandulifera*. Thanks are due to ENHS for a grant during the past year to enable The Conservation Volunteers to remove some of the plants before they could set and spread their seed.

Shining cranesbill *Geranium lucidum*, meadow foxtail *Alopecurus pratensis*, cuckoo pint *Arum maculatum* and at least three different species of ferns; male *Dryopteris felix-mas*, lady *Athyrium filix-femina* and broad buckler *dryopteris dilatata* were noted. Despite falling temperatures we continued through the woodland past the area where enchanter's nightshade is abundant later in the year. The outing ended with finding a part-demolished fungus - almost certainly *Mitrophora semilibera* which, so far as is known, is the first morel record for the park.

Eunice Smith

Glen Lednock

25th May 2013

Leader Joanie McNaughton

About 10,000 years ago Glen Lednock was gouged and sculpted by glaciers and torrents of stone-laden, icy meltwater which cut through the soft rock leaving behind unusual rock structures, the best example of which is the Devil's Cauldron. With its position astride the Highland Boundary Fault, the nearby town of Comrie remains one of the most geologically active areas in the UK. It has its own earthquake house, now a listed building, monitoring seismic activity.

The lower, broadleaved woodland is dominated by oak and beech, with alder and hazel also frequent, interspersed with more recently planted conifers of different species. One notable tree, non-native to Scotland, was an estimated 300 year old hornbeam *Carpinus betulus*, perhaps one of the first to be transplanted from England.

Immediately on arrival we were greeted by wood warbler song. Little did we know that this was to be the most common birdsong throughout the whole day; with its piercing shrill couple of notes followed by the 'spinning coin' sound of the song spiralling down. Prominent early in the walk were several species of ancient woodland indicators; primrose *Primula vulgaris*, bluebell *Hyacinthoides non-scripta*, greater stitchwort *Stellaria holostea*, pignut *Conopodium majus*, a stunning mauve-petalled variety wood anemone *Anemone nemorosa* and wood sorrel *Oxalis acetosella*, the latter's leaves being sampled to taste. We had been told by a local botanist to look out for bird's nest orchid *Neottia nidus-avis*, but it was not found owing to the late spring.

Ferns were noteworthy contributors to the ground flora with about

Treecreeper



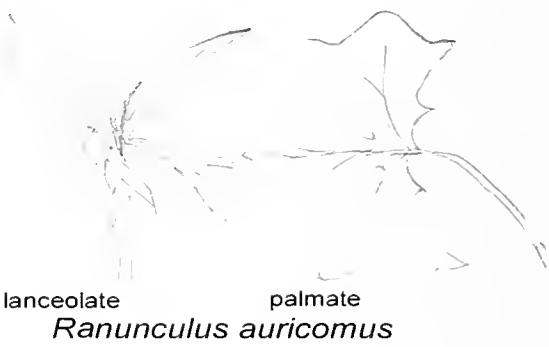
fourteen species identified in total. Male fern *Dryopteris filix-mas*, broad buckler *Dryopteris dilatata*, lemon-scented *Oreopteris limbosperma*, bracken *Pteridium aquilinum*, brittle-stalked beech fern *Phegopteris connectilis* and oak fern *Gymnocarpium dryopteris* with delicate, triangular fronds and a fine black stalk. Across a grassy meadow towards the river grew wild cherry and hawthorn where mistle thrush, blackcap and garden warbler were heard, the latter with its longer delivery and vaguely scratchy song compared to blackcap's shorter less scratchy sound. Also here were house martin and swallows hawking over the grass, and a solitary swift. We saw a forest cuckoo bumblebee *Bombus sylvestris* by the path. This bumblebee kills the queen early bumblebee *Bombus pratorum*, intrudes and takes over the nest.

The predominantly oak woodland gave us treecreeper, its bill stuffed with insects, a pair of great-spotted woodpeckers gathering food, a song thrush singing high in the canopy, each phrase being repeated three or four times before moving on to a new phrase. We were treated to spotted flycatchers around their nest; and a fine view of wood warbler, so far only heard. I say 'only'. We had been hearing one singing every 50 yards or so. Lichens were abundant. On a fallen branch we saw old man's beard lichen *Usnea australis* which needs the right conditions to spore and the fungus captures algae to photosynthesise; and also oak lichen *Evernia prunastri*, growing high on trees, it can normally only be studied when fallen to the ground. Further up the glen and walking above the gorge we found thyme-leaved speedwell *Veronica serpyllifolia*, sanicle *Sanicula europaea* and goldilocks *Ranunculus auricomus*, uncommon in this area. Goldilocks at first glance seems to be a mixture of two plants, but detailed inspection reveals a confusion of palmately-lobed basal leaves and narrow lanceolate stem leaves. On the path we found a predated tiny egg, creamy coloured with little red spots, a robin's. A large patch of maroon-coloured liverwort growing on a damp rock alongside the road was not identified.

The glen opening out, we split up, some to climb to the monument others to eat lunch by the road or down by the riverbank. A dipper zipped past and orange tip *Anthocharis cardamines* and green-veined white *Pieris napi* butterflies were seen. Those by the river missed the red kite flying overhead, but fortunately saw it later. Lunch over we walked to the Shaky Bridge, set between the fork of a large tree. From the bridge, we saw a juvenile dipper, its bib only a dingy grey, and downstream the adult swimming underwater, catching larvae. A longhorn beetle *Rhagium mordax*, was examined. From the bridge we also watched pied wagtail on the riverbank, and long-tailed tits in the trees overhanging the river. The group again split, some to complete the circuit, the rest returning the way we came. Jean found an interesting stonefly, later identified *Perlodes microcephala*, one of the largest stoneflies and showing an irregular network of veins near the wing-tips.

Along the verges, scaly male fern *Dryopteris affinis* agg. was stunning in early growth, the stem densely covered with bright orange scales and yellowish-green unfurling leaves. We watched a male yellowhammer close to, singing its heart out from atop a large boulder. In the morning we were unable to stop at the Devil's Cauldron as a wedding was taking place so on the return journey we were treated with a pair of grey wagtails carrying insects to their nest. Further down the glen, a green woodpecker was heard yaffling, at first reasonably close then more distantly. A dor beetle *Geotrupes stercorarius* was examined, its metallic purple-coloured underside noted before replacing it safely away from heavy booted feet. Mites, not parasites, were visible on the beetle's back, getting a free piggyback to their next meal. Back at the bus while waiting for the ice cream splinter group to return, we watched a male blackbird feeding a newly-fledged bird with grubs gleaned from the beech leaf litter. And now the full circuit group rejoined us. On the other side of the river they reported a cuckoo calling, meadow pipit displaying, slow worm *Anguis fragilis* and yellow pimpernel *Lysimachia nemorum*.

Joanie McNaughton, with thanks to David Adamson, Neville Crowther and Jackie Muscott.



Roslin Circuit

1st June 2013

Leader Lyn Blades

Variety is the spice of life and we certainly had that in abundance for not only was the natural history exceptional, some general history of the area was included on the route.

From the centre of the village, in glorious sunshine with a chill in the air, we walked along Manse Road to reach the Monument commemorating the Battle of Roslin, 1303. Taking a wooded path we passed Dryden Walled Garden on our left where we found shining cranesbill *Geranium lucidum* at its best. We then arrived at the Ice House which was in excellent condition. Both these buildings were part of the Dryden House estate. The mansion was a ruin for many years before finally disappearing under the spoil of Bilston Glen and Burghlee coal mines.

Soon we were walking across the overgrown bing from the former Bilston Colliery. This area produced many plants with common wintergreen *Pyrola minor* causing the most excitement. Here we had an opportunity to discuss the differences between silver birch, *Betula pendula* and downy birch, *B. pubescens* for they were growing side by side. Then the impressive structure of the Bilston Viaduct came into view. This was restored in 1999 and once carried the railway across the deep gorge formed by the Bilston Burn. Once we crossed the viaduct we headed off to Hewan Bank where close by at Hewan Bog one of the encounters of the Battle of Roslin took place. It was at Hewan Bank, a fast eroding sand bank that Hewan Cottage slipped into the river in 1979 along with 100,000 tons of debris after heavy rain. Fortunately there was no one in the cottage at the time!

By now the group of sixteen of us were ready for lunch and at Maiden Castle we found a couple of fallen beech trees that made very comfortable seating. Here growing on the sawn off end of one of the beeches was a Myxomycete slime mould *Reticularia lycoperdon*. Its common name is false puffball as when sporulating it produces a dark brown spore mass just like Lycoperdons. After lunch we then proceeded to walk around the promontory with the river on our right where I was particularly pleased to see pick-a-back plant *Tolmiea menziesii* for the first time only to be told that it was quite common and that I would see it on my next walk. Yes, Dave you were quite right, for a couple of days later I did indeed find some by the River Esk in Roslin Glen Country Park.

Throughout our walk we were accompanied by the songs of many warblers with the highlight being two cock garden warblers singing at the top of Hewan Bank. Thanks to Mike for alerting us to them. Unfortunately, sand martins were not to be seen where there used to be a large colony in the sand cliff. Also on this slope, in deep shade we had three species of woodland grass, indicative of ancient woodland. They were *Melica uniflora*, *Milium effusum* and *Poa nemoralis*.

I was pleased to find some plant galls and after taking samples home identified them as follows: pale patches on lime leaves were caused by the gall mite *Eriophyes leiosoma*. Pink pimples around the edges of blackthorn leaves were the galls of the gall mite *Eriophyes similis* and on sycamore leaves, felt galls caused by another gall mite *Aceria pseudoplatani*.

So apart from the above we had a plant list as long as your arm and observed ferns, had a couple of butterflies, other insects, anther smut on red campion *Silene dioica* and even white-lipped snails, *Cepaea hortensis*. A truly successful and very enjoyable day. Should anyone be interested in taking this walk the leaflet 'Roslin Rambles' shows the paths we took on its clearly marked map.

Lyn Blades. With thanks to Neville Crowther for his contributions.

Colinton Dell Ferns

5th June 2013

Leader Heather McHaffie

The group met on the road bridge over the Water of Leith at Colinton Village and we followed the footpath going west onto the south bank of the river. Although we had a generally sunny summer the evening was overcast but remained dry. The bank in this area was remarkable because despite the prevailing dryness continuous seepage provided a damp, although not very lime-rich habitat.

The first plant of the soft shield fern *Polystichum setiferum* is found quite soon on the lowest path near the river. This is the beginning of a remarkable large population of a fern that is more common

in the south and west of Britain with very few sites north of Edinburgh. As the rocks around Edinburgh tend to have some lime content our commoner species is the hard shield-fern *Polystichum aculeatum*, as found at Cramond and Roslin. As both species were not present for comparison I had brought a frond of the hard shield fern and we looked at the shape and texture. The hard shield fern is dark green, shiny and does indeed feel harsher. The narrow frond tapers gradually to a short stalk at the base. The soft shield fern is more yellow-green, has a matt surface and feels softer. The frond is rather broader and is till quite wide when the leafy part gives way to a long basal stalk. Both have leaflets that look like little mittens and very large pale scales at the base. We walked along the main path seeing a variety of woodland ferns. There was the delicate lady fern *Athyrium filix-femina*, the common and scaly male ferns *Dryopteris filix-mas* and *D. affinis* agg. There were many clumps of wood sanicle *Sanicula europaea*. We looked into large clumps of the wide based triangular fronded broad buckler fern *Dryopteris dilatata* with long basal stems covered in striped scales. There were also clumps of the hart's tongue fern *Asplenium scolopendrium* with shiny fresh green strap-shaped fronds. Small paths branched off and we followed one which went through drifts of ransoms *Allium ursinum* that thrived in the damp soil and made a beautiful setting for the abundant soft shield ferns. Occasional disturbed areas, perhaps with a fallen tree or an eroding bank had allowed the more invasive few flowered leek *Allium paradoxum* into the area, but fortunately very there was little.



Because the slope was so consistently wet we were able to find a small steep bank with young ferns, some still growing from their heart-shaped gametophytes, the minute plants that grow from fern spores and must be fertilised before producing little fronds. We circled round and came into Colinton Village under the road bridge, seeing more tiny ferns growing on the walls. The commonest one was the lime loving wall rue *Asplenium ruta-muraria* with tiny dark green fronds and diamond-shaped divisions. The dainty narrow fronds of the maidenhair spleenwort with tiny fan shaped leaflets or pinnae were found on one wall near the church. As we went along we were able to revise many of the same

woodland ferns as we saw them growing in gardens and in the church yard where they were probably self-sown.

Heather McHaffie

Dr Heather McHaffie, Scottish Plants Project and ENHS member was awarded an MBE for services to the Conservation of Plants in Scotland.

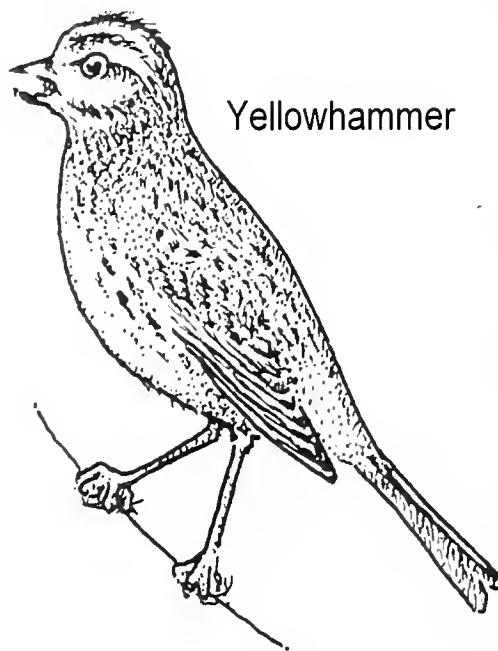
Dawn chorus walk at Pencaitland

8th June 2013

Leaders Lesley Fairweather and Kevin Ingleby

An excellent weather forecast delivered on its promise as we all assembled at Hoolets Yett in blazing sunshine.

Within a few minutes of setting off, the call of a nuthatch *Sitta europaea* indicated that we were approaching it's nest hole which had been located earlier by Lesley. After a few minutes wait a parent bird duly arrived and entered the hole, busying itself inside for several minutes - we all speculated on the reasons for its delayed departure, little realising that later in the day the reasons would become



clearer. Continuing the walk along the southern edge of The Big Wood, we soon added sightings and sounds of many of the expected woodland bird species, pausing while Neville explained the distinguishing features of herb robert *Geranium robertianum* and herb bennet *Geum urbanum* and the speedwells germander and wood *Veronica chamaedrys* and *V. montana*. As the track opened out into farmland and hedgerow habitats, we quickly added skylark *Alauda arvensis* and yellowhammer *Emberiza citrinella*, before a distant whitethroat *Sylvia communis* entertained us, proclaiming it's territory with its piercing, rattling song and a series of song flights. The walk proceeded along a field boundary comprised mainly of mature trees of oak, beech, poplar and the uncommon field maple *Acer campestre* and housing possibly the longest badger sett in East Lothian - it seemed to extend along most of the field margin. As we re-entered a block of mature woodland, a spotted flycatcher *Muscicapa striata* proved elusive, but the more patient amongst us obtained good views. The halfway point of the walk was marked by the spectacular Ormiston yew, a tree thought to be nearly a thousand years old and forming a giant umbrella-like structure, which gave some welcome relief from the blazing sun and soaring temperatures.

A chiffchaff *Phylloscopus collybita* sang us off on the return journey. This time we passed through The Big Wood and a varied mix of conifer and broadleaf plantation where goldcrest *Regulus regulus* and coal tit *Periparus ater* (formerly *Parus ater*) sang, followed by more open birch scrub where willow warbler *Phylloscopus trochilus* song dominated. Lunch was taken by a small pond where numerous recently - emerged large red damselflies *Pyrrhosoma nymphula* provided the entertainment with their lilting copulation flights. The walk culminated with a final viewing at the nuthatch nest hole which provided the highlight of the morning. As we took our positions, the nuthatch nestlings decided to fledge. At least 3 tumbled from the nest hole and took their first tentative flight onto lower branches, looking slightly bemused and awaiting instruction and some food, no doubt, from the parents.

All in all, a productive and entertaining walk with 36 species of birds seen or heard. Useful records were also obtained for the on-going south east Scotland, British Trust for Ornithology Bird Atlas with 6 new species added for the Ormiston Hall tetrad, and 9 new species for the Big Wood tetrad.

Lesley Fairweather and Kevin Ingleby

Eagle Rock

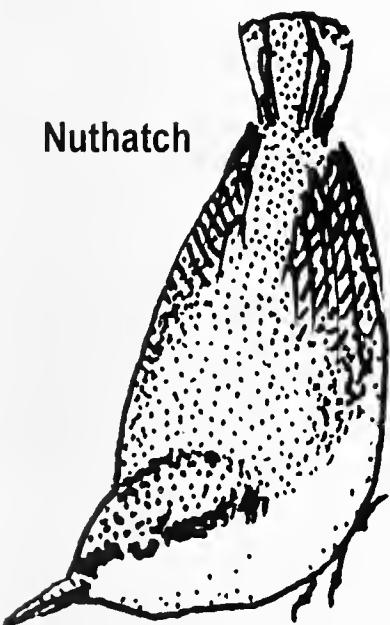
12th June 2013

Leader Kathy Buckner

A day that couldn't seem to decide what it wanted to do settled down to a beautiful evening when nine NATS plus a visitor from Dublin assembled beside the car park at the Cramond Brig Hotel for a walk down an estate track to the coast and on to Eagle Rock before a return through strips of deciduous woodland.

The left hand side of the track consisting of a hedgerow and verge was dominated by red campion *Silene dioica*, nettle *Urtica dioica*, creeping buttercup *Ranunculus repens* and cocksfoot *Dactylis glomerata*. There was also a single splendid laburnum *Laburnum anagyroides*, the biggest I have ever seen with two thick stems arising from a single bole. The smaller was about eighteen inches in diameter and the other about two feet in diameter. A most venerable specimen!

The right hand side of the path was the top edge of the *Ulmus-Acer-Fraxinus-Crataegus* woodland that reaches down to the River Almond. The ground cover here was more diverse and included wild strawberry *Fragaria vesca*, germander speedwell *Veronica chamaedrys*, wood avens *Geum urbanum* and cow parsley *Anthriscus sylvestris* as well as some green alkanet *Pentaglottis sempervirens* and some early mugwort *Artemisia vulgaris* that I initially mistook for rayed tansy *Tanacetum vulgare* which I knew to be growing somewhere in this area. Further along the track was



Nuthatch

bounded by arable fields that had a fine border of field horsetail *Equisetum arvense* and large clumps of Russian comfrey *Symphytum x uplandicum*. The track itself had a fine trample community including a lot of shepherd's purse *Capsella bursa-pastoris* and great plantain *Plantago major*.

Just before we reached the shore we watched a lone buzzard being mobbed by a carrion crow. It was an interesting sight: the buzzard appeared indifferent to its attacker maintaining the same direction and altitude; perhaps it was already in retreat. It flew on over the trees and towards the estuary without attempting to perch.

There were few birds on the water, perhaps they were breeding or nesting on the islands. We did spot some curlew, oystercatcher, cormorant, shelduck, eider and a single heron.

Coastal vegetation included lyme grass *Leymus arenarius*, sea sandwort *Honckenya peploides* large stands of leopard's bane *Doronicum pardalianches* and some unidentified orache *Atriplex spp.*

Invertebrates included orange-tip butterflies *Anthocharis cardamines* and several assemblies of millipedes on the trunks of beech *Fagus sylvatica*. I had a good look at the carving on Eagle Rock but concluded that it required more imagination than I possess to see an eagle, Roman imperial, or otherwise.

Returning through the woods where there was much horse chestnut *Aesculus hippocastanum* and ramsons *Allium ursinum* and alexanders *Smyrnium olusatrum*; we startled a roe buck that quickly vanished into the ferns and shrubs.

Back at the car park there was a large clump of the rayed tansy I had hoped to find, must have walked passed it on the outward leg.

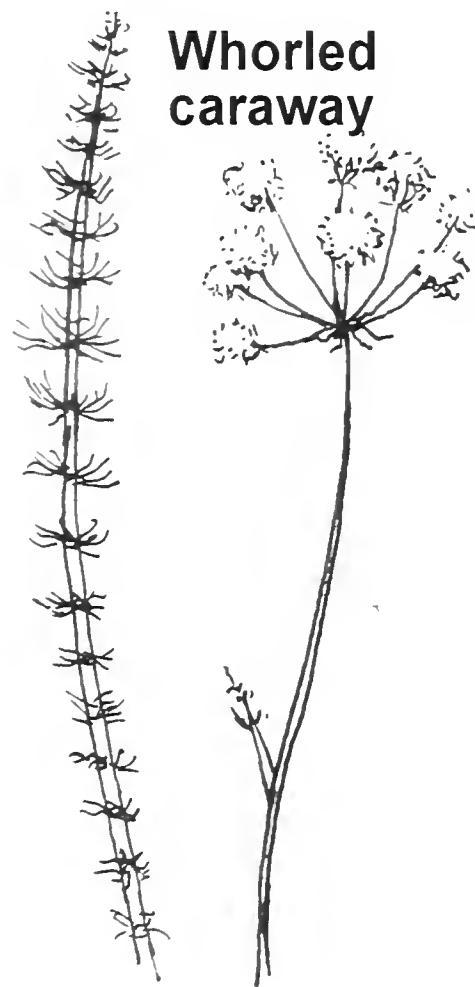
Kathy Buckner

Glen Moss SWT Reserve, Kilmacolm

15th June 2013

Leaders N Crowther and G Smart

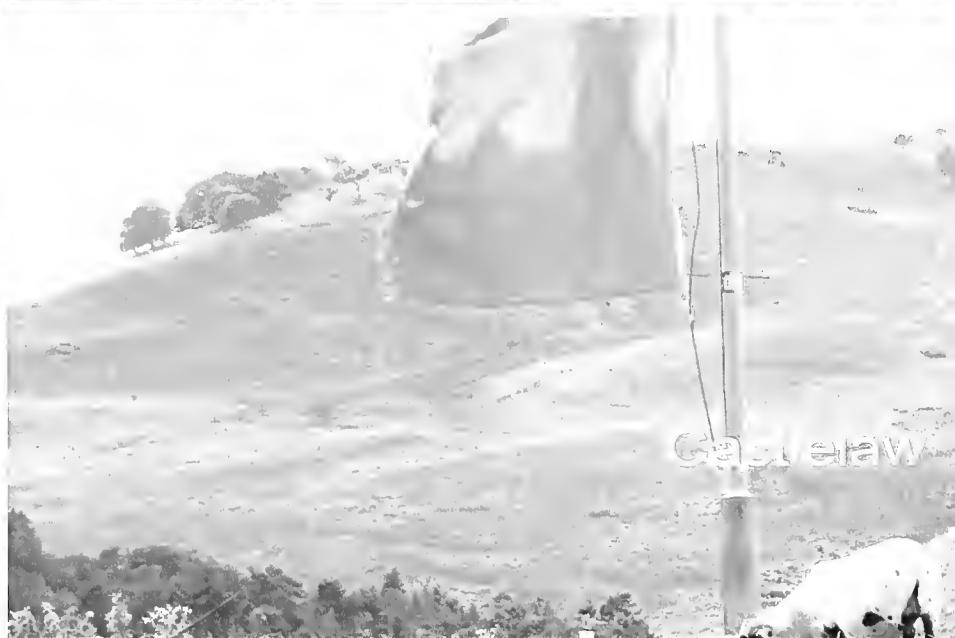
It seemed an inauspicious prospect when reading the reserve literature to find that three notable plants were mud sedge, bog bean and lousewort. But as the rain fell harder as our bus drove west along the M8 the names did not seem too inappropriate.



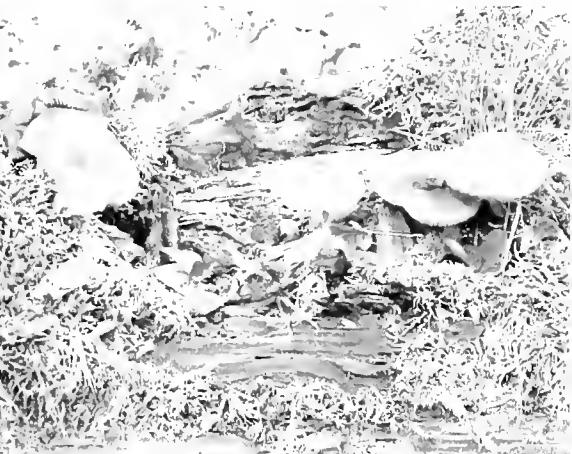
Thirteen left the comfort of our bus to join my old friend Gill Smart, who is the SWT reserve manager for south-west Scotland, responsible for about 20 reserves. Her enthusiasm and knowledge helped us find most of the unusual vascular plants.

Glen Moss consists of a mosaic of peat bogs, bog pools, marshes and surrounding woodland. The wetland areas originated in the 19th century when several burns were dammed in order to create a curling pond, which was used until the early decades of last century. On the short walk down to the convenient boardwalk sharp eyes were able to identify two uncommon flowering plants on the edge of a spruce plantation. One was the diminutive bird's foot *Ornithopus perpusillus* and the other the smallest wintergreen *Pyrola minor*.

The swamp and moss vegetation was dominated by *Sphagnum spp.* and willow carr which was mainly goat willow *Salix caprea*. Other records of note included flowering lesser spearwort *Ranunculus flammula*, marsh marigold *Caltha palustris*, round leaved sundew *Drosera rotundifolia* and marsh violet *Viola palustris*. New to many of us and a rare delight for all, was a bright orange stand of fungal fruiting bodies of bog beacon *Mitrula paludosa* in one of the pools. The only other fungus recorded during the day was a jelly fungus *Tremella mesenterica* on dead gorse twigs. A few spikes of purple loosestrife *Lythrum salicaria* were found and abundantly beneath







Moncreiffe Hill



Hill of Bogie House



Bass Rock



Abercorn Church

the carr, was the little known tufted loosestrife *Lysimachia thyrsiflora* but only the odd one carried any flowers. Typical of marshes in the West of Scotland and consequently known only to few of us was the umbellifer whorled caraway *Carum verticillatum*.

For a short time in the afternoon the rain relented and we were able to record some animal life, although this remnant was disappointing compared to what might have been. Two azure damselflies were the only Odonata. Gill found one adult lepidopteran, a striking clouded border moth *Lomaspilis marginata* and a plump caterpillar which was deemed to be a clouded drab moth *Orthosia incerta*.

The rain eventually drove us back to the car park, where the bus driver was amazed at our perseverance. Gill Smart's enthusiasm had kept us going and looking at our plant lists it was only then that we realised how successful we had been

Neville Crowther

Mavisbank

19th June 2013

Leader Tom Delaney

This excursion was an experimental 1pm start on Wednesday. Six people met at Polton Bridge over the North Esk on a superb warm summer day. Blizzards of mayflies, both two and three tailed rose above the water as we began our walk along the ancient riverside footpath linking Penicuik with Dalkeith. We immediately saw family parties of both dipper and grey wagtail. The riverside flora was interesting for prolific alien plants, which included two American saxifrages, fringe cups *Tellima grandiflora* and pick-a-back plant *Tolmiea menziesii*. Two of the most invasive pests Himalayan balsam *Impatiens glandulifera* and Japanese knotweed *Fallopia japonica* are at the top of the eradication list, but still increasing especially along our rivers.

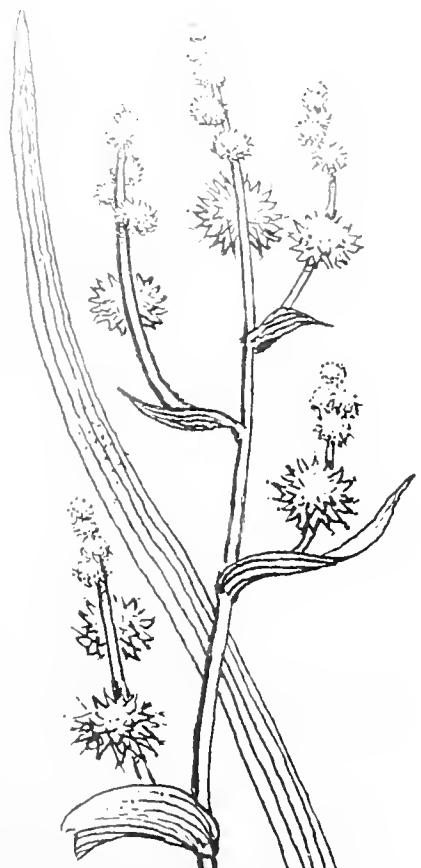
We crossed into the meadows of the Mavisbank estate passing the circular walled garden which once belonged to Mavisbank House, and pondered over the external stone wall and the internal red brick one.

Was there an obscure horticultural advantage to this form of structure?

We found many dockan leaves in which were eaten holes. Groups of yolk coloured eggs, black larvae and metallic green adults of the culprit, the green dock beetle were soon found. Nearby was a native cousin of the alien balsam mentioned above, the small balsam

Impatiens parviflora with small yellow flowers. A pause was taken near to the ruinous Mavisbank house, a Palladian mansion built by the Clerk family in the mid 18th century, which was now home to hordes of jackdaws. The now neglected orchards had apple, pear & plum trees plus odd exotic garden relics such as globe thistles *Echinops sphaerocephalus*.

Stretching to the north and a product of the design landscape is today, a highly valued habitat called wood pasture typical of grand houses in the time of the enlightenment. Wood pasture is characterised by well spaced veteran trees, for example, oak, Spanish chestnut and Douglas fir often having truncated tops or missing major branches. In the centre of this pasture with its long axis aligned with the view from the mansion is the canal, a long ornamental pond, which by neglect has become a most valuable biological asset. The emergent vegetation includes reedmace *Typha latifolia*, bottle sedge *Carex rostrata*, yellow flag *Iris pseudacorus* and branched bur-reed *Sparganium erectum*. A large area was covered with the leaves and brandy glass shaped flowers of the yellow water lily *Nuphar lutea*. Rare stoneworts *Nitella flexilis* formed a fringing refuge for thousands of tadpoles. Dabchicks whinnyed unseen and mallard ducklings scampered into the safety of the fringing emergents. Three species of damselfly were prominent in the sunshine, the most interesting being a



**Branched
bur-reed**

colour variant of the blue tailed damsel *Ischnura elegans* var *rufescens*. Other invertebrates which fascinated were backswimmers, lesser water boatmen, mayfly nymphs, midge larvae and waterlice. We found an ancient oak, its trunk bedecked with enormous brackets of chicken of the woods, a phoenix rowan which had been collapsed into the ground and then reared up skyward in its resurrection, a Cappadocian maple with glowing yellow foliage, swathes of giant horsetails sustained by a line of springs and spreading down into the pastures below. We followed trundling downhill through buttercups and mayflowers to regain the Esk and follow the riparian path back to our start. The circuit had taken almost four hours. The experiment was voted a success. But I suppose the sunshine helped.

Neville Crowther

Fauldhouse Moor

22nd June 2013

Leaders Lyn Blades & Mary Clarkson

Jackie Muscott had originally suggested an excursion to this area of old mine workings, now largely afforested, and I regret that ill health prevented Jackie from attending a very enjoyable outing. Fauldhouse Moor occupies the high ground between the villages of Fauldhouse and Harthill, just within the western boundary of West Lothian. The areas of conifer plantation alternate with blanket bog, old railway tracks and coal spoil heaps, and a number of small rectangular ponds. Wilma kindly provided detailed maps that helped keep stragglers like myself on the right track.

We first explored one of the blanket bogs, white with the heads of innumerable cotton grasses, before admiring a stand of *Carex aquatilis* by the roadside. This resembles a giant version of *Carex migra* but is relatively uncommon. On either side of our forest path were orchids, mainly common spotted *Dactylorhiza fuchsii* and northern marsh *Dactylorhiza*, but with one showy hybrid, *Dactylorhiza x venusta*. A nearby ditch was clogged with one of the pondweeds, *Potamogeton* sp. and some marsh speedwell *Veronica scutellata*.

Our path led on to a disused railway track, and most of the party lunched between this track and a pond, where Neville found a female smooth newt and a clouded border moth *Lomaspilis marginata*. However, Vladimir and I had postponed lunch to explore a nearby spoilheap, much scarred by motorbike tracks. Vladimir identified a set of more natural tracks as being those of a roe deer that had descended the slope of the bing.

After the main party had moved on, Vladimir and I found moonwort ferns *Botrychium lunaria* growing just where they had lunched. As is often the case, once you get your eye in for a plant, you begin to find more and more. So it was perhaps not surprising that, at the very point that we did catch up with the main party, we again found dozens of moonwort fronds all along the edge of the path.

Further botanical finds were large stands of bistort *Polygonum bistorta*, some twayblade orchids *Neottia ovata*, and a solitary plant of kidney vetch *Anthyllis vulneraria*. While the sun shone on a small pond, fringed with yellow flag *Iris pseudacorus* and marestail *Hippuris vulgaris*, the dragonflies and damselflies were active. The four-spotted chasers *Libellula quadrimaculata* were particularly hard to follow as they hovered and skimmed above the marestail, but the damselflies did at least settle long enough to allow Neville and Tom to identify them as azure *Coenagrion puella*, blue-tailed *Ischnura elegans* and large red *Pyrrhosoma nymphula*.

Latticed heath moths *Chiasma clathrata* were abundant today. We also saw a tiger moth, but its flight was too fast to allow identification of the species. Although insects, flowering plants, ferns, and some newts provided most of the natural history interest, I identified a 3-lobed leafy liverwort that I had collected under a heather plant as a *Barbilophozia*, probably *B. floerkei*. Before attending a bryophytes course at Kindrogan earlier this year I would not even have been able to identify it as a liverwort.

Thanks to all seven who participated in, and contributed to a memorable outing. Thanks also to Jackie; I doubt that anyone else would have suggested an excursion to this interesting location.
David Adamson

Almondell Country Park

26th June 2013

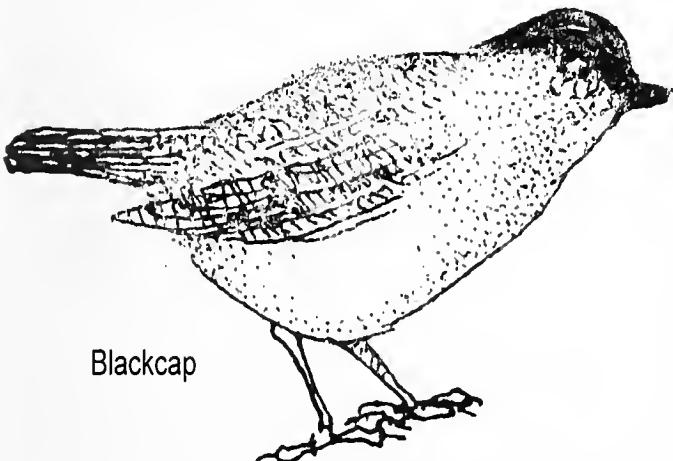
Leader Malcolm Lavery

We were blessed with a beautiful midsummer's evening for the small group that gathered for this walk which proceeded upstream along the banks of the River Almond from the main car park and down the far side on our return.

Fringing the car park were some attractive examples of common spotted orchid *Dactylorhiza fuchsii* in flower. Wood millet grass *Milium effusum*, a characteristic plant of old woodland was present too. A specimen of the nowadays almost ubiquitous buzzard perched nearby.

We made our way down through oak, hazel and other native trees, passing two fine mature examples of our only native maple, field maple *Acer campestre* on the way. A possible sighting of great spotted woodpecker was noted as we headed towards the riverside. Two moths were flushed as we passed, identified as silver ground carpet moths *Xanthorhoe montanata*.

Down by the old Alexander Naysmith bridge a patch of the non-native monkey flower *Mimulus guttatus* was growing quite unobtrusively, and a pair of grey wagtails were busy among the stones by the riverbank. A pied wagtail and a dipper further on added to the as yet fairly low bird count. We were now walking along the lade-side which ultimately feeds the union canal further downstream at Linn Mill, and the damp environment provided a home to the tufted plant remote sedge *Carex remota*. Valerian *Valeriana officinalis*, just coming into flower, was also seen here.



A wide bend in the river provided space for some low scrub habitat and we could hear, and occasionally see, species such as willow, sedge warbler and blackcap. A great spotted woodpecker was seen again, more conspicuously, as it flitted from tree to tree.

Hairy sedge *Carex hirta*, meadow cranesbill *Geranium pratense*, tufted vetch *Vicia cracca* and wood cranesbill *Geranium sylvaticum* were among the flowering plants encountered on the way back to the car park

I had been assured by the warden at the Visitor Centre that Almondell has its own population of kingfishers

and even otters these days, but unfortunately we didn't manage to spot these. Rising trout were sipping down flies here and there in quiet stretches of the river though, a testimony to the relative cleanliness of the water and its ability to support life.

Malcolm Lavery

Blindwells and Longniddry Bents

29th June 2013

Leader Neville Crowther

Seven of us assembled on mainly fine morning. As it was the first day of the school summer holidays, it didn't surprise that there were so few of us. It was pleasant to welcome Jackie after her recent illness. The sunshine and breeze displayed the Blindwells grassland at its best. There were hundreds of newly emerging burnet moths, their pupal cases scattered on grass stems and many adults in cop. Unexpectedly all those identified were narrow bordered 5-Spots. A target species for us that day were the bee orchids *Ophrys apifera* found only 2 years ago. After drawing a blank in the miserable summer of last year, we quickly found around 25 spikes within a small area. For many of us they were the first seen in Scotland. A first for this year were the many ringlets and a few meadow browns. Other orchids in flower included common spotted *Dactylorhiza fuchsii* and northern marsh *D. purpurella*. The hairy tare *Vicia hirsuta* was the most widespread flowering herb. A family party of mute swans including 7 cygnets dabbled away on the pond oblivious to our presence. Several coot and a reed bunting were busy in the emergent sallows and blue and red damselflies danced over the water surface. Two enterprising young boys found an emerging

emerald, the first for the year, and they knew its name! For me the star of the morning was a wood sandpiper which rose rapidly into the air displaying its white rump dropping beyond our gaze. Perhaps it was a returning failed breeder or in this strange year a late migrant.

We drove on to Longniddry and had our lunch amongst the thrift on the sea's edge. People, cars, dogs and bikes were a serious disturbance to browsing naturalists, so we moved east to the coastal grassland where some outstanding vascular plants had always been notable. Amongst the sea buckthorn *Rhamnus catharticus* were hemlocks *Conium maculatum* and teasel *Dipsacus fullonum*. The bloody cranesbill *Geranium sanguineum* still smothered the area, but disappointingly only one spike of clustered bellflower *Campanula glomerata* could be found, instead of scores. The nodding thistle *Carduus nutans* was a spectacular rarity. Despite searching for burnet rose *Rosa spinosissima* none could be found.

The ribbon of shingle and saltmarsh left between the water and the seawall did offer some interest despite its small size. Sea saltwort *Honckenya peploides* and the sea milkwort *Glaux maritima* were dominant in the marsh. On the shingle along with *Atriplex patula* and *A. laciniata* we also found an unusual member of the genus, grass-leaved orache *A. littoralis*

As we retraced our steps to the cars we reflected on the apparent deterioration in the habitat diversity, due to excessive recreational use. It has been a lesson often repeated, but never learnt.

Neville Crowther



Kitleyknowe Blanket Bog via Amazondean

6th July 2013

Leader Michael Jones

Meeting in Carlops car park on a sunny morning Michael Jones led this group of twelve out of the village, heading for today's destination: the blanket bog beyond the settlement of Kitleyknowe, to look for the large heath butterfly. As a consequence of the late spring, there were still a few flowers on the gorse and hawthorn, and some garden plants seemed several weeks behind those in Edinburgh, even allowing for the altitude of Carlops at a little under a thousand feet.

On leaving Carlops a small patch of perennial sow-thistle *Sonchus arvensis*, described as local to rare for this area, was seen by the roadside before we took a narrow path that made a corridor through hawthorn *Crataegus monogyna* and broom *Cytisus scoparius* taking us away from the busy trunk road. There were many long-dead elm trees that had been 'worked on' by woodpeckers and stretches of young trees on the route towards Nine Mile Burn. Turning southwards we crossed the main road on the descent to Amazondean, where, after much debate, we concluded that a large sedge near Hobbies Howe was nothing more exciting than wood sedge *Carex sylvatica*

On reaching Kitleyknowe it proved to be the gateway to better things. Beyond it lies an expanse of blanket bog that is pitted with the sink holes from old mine workings. The view from the moorland looks east and south across the deep syke of Harlawmuir Burn towards Harlawmuir, with Auchencorth Moss beyond. The roofless ruin of the mine overseer's cottage still sits, like a shipwreck in a white sea of cottongrass.

Before arriving at the bog the group had to cross the reinstated ground that had been the site of opencast coal mining in the 1980's and an interesting stop was made at a small pond discovered amongst an apparent rubble tip. Here there were many common blue damselflies *Enallagma cyathigerum* and large red damselflies *Pyrrhosoma nymphula* in the air, while whirligig beetles buzzed around the water surface *Gyrinus sp.* possibly *natator*. Occasionally a black water beetle *Agabus bipustulatus* came up for air.

After lunch three of us took a detour to Harbour Craig, an outcrop of old sandstone overlooking the Burn and carved with weathered inscriptions, perhaps from Covenanters retreating from Rullion

Green. Within the recesses of the Craig were wings of a garden tiger moth *Arctia caja*. We were passed by strong-flying dark green fritillary butterflies *Argynnis aglaja*, wings and bodies very much intact!

When we rejoined the main party we all spread out and began to discover the botanical wealth of this blanket bog as plants, many described as locally frequent but typical of the habitat, were found to be abundant. Although minute, its reddish colour helped us to spot round leaved or common sundew *Drosera rotundifolia*, many of the plants growing on the Sphagnum moss. Upright green blades were leaves of bog asphodel *Narthecium ossifragum*. Tiny pink petals were those of cranberry *Vaccinium oxycoccus*.

Although we had seen and caught northern oak/eggar moths *Lasiocampa quercus*, unmistakeable due to their large size and two-tone brown wings, there was no sign of the large heath butterflies *Coenonympha tullia* for which this moor is a recognised site. Butterflies generally dislike flying in strong breezes, even warm ones, and Michael thought that any large heaths might be sheltering in the lee of a nearby conifer wood. We made for this wood, at one point forming a line like grouse-beaters, and were soon rewarded by finding many of the butterflies. However they flew quickly over the cotton grass, looking greyish and slightly larger than the small heath, and evaded even Michael's butterfly net! We did manage to catch one or two and were able to see the spots at the edge of their wings.



One further Lepidopteran find near the conifer wood was made by Noeleen Donachie, who caught a wood tiger moth *Parasemia plantaginis* apparently much rarer than the garden tiger moth, but almost as colourful. After some additional practice in climbing barbed wire fences we ambled back to Carlops, where we thanked Michael for another excellent outing. I hope he is able to keep conjuring up interesting Pentland walks for us for many years to come.

David Adamson with grateful assistance from Michael Jones

Long Summer Excursion to the Aberfeldy Area 8th - 12th July 2013

A walk from the Hermitage to Rumbling Bridge

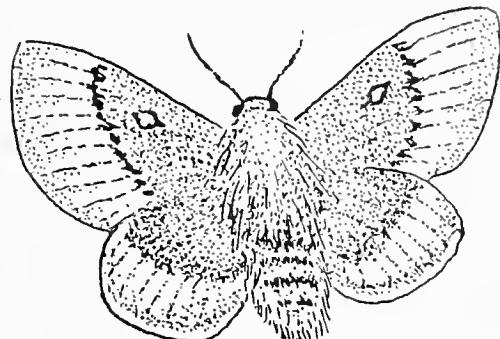
8th July 2013

Seventeen met at the Hermitage car park on the way north. In a day of rising temperatures the stroll through many scores of stately Douglas Firs to Ossian's Hall overlooking the Falls of Braan was relaxing and pleasantly warm.

Our eyes were drawn upwards by these 70m. giants seemingly to the point of infinity. They had been planted almost 200 years ago following David Douglas's first expedition. We climbed alongside the River Braan westwards until the boundary of the Craigvinean Woods. Our lunch was due and the last of the shade was useful. In the open meadows beyond, we recorded golden ringed dragonflies, common blue and ringlet butterflies, silver ground, common carpet and dozens of chimney sweeper moths. There were many common spotted orchids *Dactylorhiza fuchsii* and a small stand of fox and cubs *Pilosella aurantiaca* to admire. We descended to the narrow Rumbling Bridge which arched over the spectacular falls 45m beneath. A spectacular observation on the stonework beneath the parapet were tufts of brittle bladder fern *Cystopteris fragilis*. A whitethroat sang in the oaks around the bridge and grey wagtails did just that on the rocks below.

Because of a landslide on the right bank of the Braan we had to retrace our steps to the start but some memorable plant records were made. The wood sedges *Carex sylvatica* were luxuriant and the marsh hawksweed *Crepis paludosa* new to some. Two epiphytic liverworts, the narrow green thalloid *Metzgeria furcata* and the purple leafy *Frullania tamarisci*, grew alongside each other on birches and attracted some interest, although most were then heading for the ice-cream van and the bottles of ginger beer.

Neville Crowther



Northern eggar moth

Meall nan Tarmachan cliffs

9th July 2013

On a day when Perthshire recorded the warmest temperatures in the UK, 22 members gathered for an exploration of the lower cliffs of Meall nan Tarmachan. Some of the party were surprised to find the long standing National Trust Scotland car park on the east side of the road had been removed and returned to nature. It has been replaced with a more carefully landscaped one a little further down the west side of the road. Members also noted the recent deforestation of the lower slopes of the road changing the approach to the Lawers area.

The party walked slowly up the road towards the dam. Many interesting species were found along the roadside. These included a good selection of sedges, including *Carex hostiana*, *dioica*, *leporina*, *pulicaris*, *pilulifera* and *caryophyllea*. One group also found a nice specimen of moonwort *Botrychium lunaria*. Small heath, ringlet and chimney sweeper in flight were common in the montane grassland. Just before the dam is reached, the road narrows to pass between some minor crags. This is a well known spot for finding purple mountain saxifrage *Saxifraga oppositifolia*, but we were too late to see the flowers. We also noted cushions of moss campion *Silene acaulis*, green spleenwort *Asplenium viride* and yellow mountain saxifrage *Saxifraga aizoides*.

After crossing the dam we had lunch, where a few golden tinged dragonflies provided interest and there was an unusual abundance of northern eggar moth in flight.

We headed upwards towards the crags and alongside a mountain stream we noted a fine examples mountain sorrel *Oxyria digyna*, hoary whitlow grass *Draba incana* and the white flowers of mossy saxifrage *Saxifraga hypnoides*. Abundant yellow rattle *Rhinanthus minor* was in full flower.

The party then scrambled up through increasingly lush vegetation towards the crags. This is a herb rich area with species normally associated with broadleaved woodland such as water avens *Geum rivale*, wood cranesbill *Geranium sylvaticum*, globe flower *Trollius europaeus*, melancholy thistle *Cirsium heterophyllum* and wood vetch *Vicia sylvatica*. These species enjoy the base rich soil and the shade provided by the crags looming above.

The lower reaches of the crags proved very productive, northern bedstraw *Galium boreale*, alpine cinquefoil *Potentilla crantzii*, a single holly fern *Polystichum lonchitis*, marsh hawkweed *Crepis paludosa* and roseroot *Sedum rosea* were found. The most interesting find was 3 plants of *Woodsia alpina* doing well on top of an outcrop below the main crags. Occasionally the squeals of peregrine falcons were heard, but we did not see any.

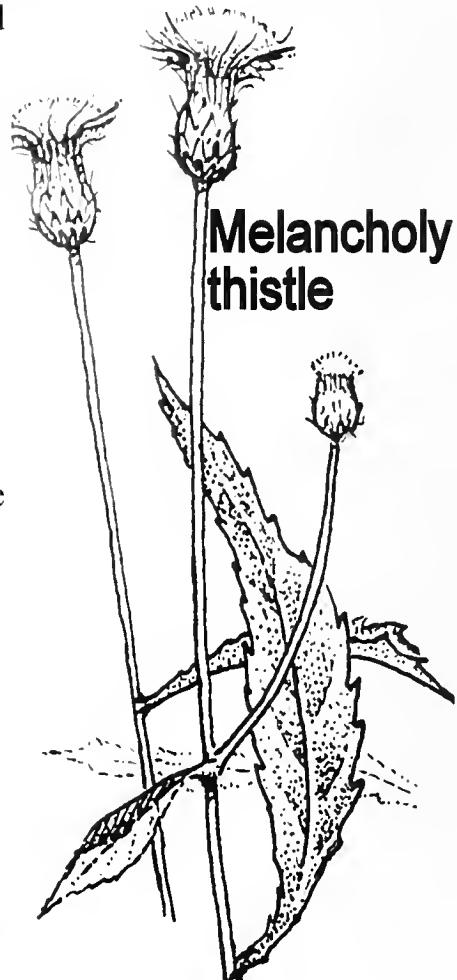
Next day Tom and Roger returned to investigate the very dark ringlet-like butterfly which had been noticed but not investigated. This was found to be a thriving colony of mountain ringlets and good photographs were obtained. Also noted and new from the main outing were frog orchid *Coeloglossum viride*, mountain pansy *Viola lutea* and mountain willows *Salix lapporum*, *arbuscula* and *aurita*.

Roger Holme

Keltneyburn, Scottish Wildlife Trust Reserve

10th July 2013

It was a complete contrast to visit a nearby wildflower meadow after the Tarmachan Cliffs the previous day. It was a squeeze to get all our cars parked by the roadside at Keltneyburn village just south of the reserve. We were greeted by one of the volunteers, Margaret Jarvis, a friend of Neville Crowther, and she escorted us up the track and gave us further information about the specialities to look out for on the reserve, which is particularly well known for its orchids.



**Melancholy
thistle**

We had passed beech fern *Phegopteris connectilis* as we walked up the track and most of us continued on the same path to see small cow-wheat *Melampyrum sylvaticum*, whose flowers are deep yellow with a wide open corolla mouth and which is not at all common. Common cow-wheat

Melampyrum pratense, whose flowers are pale yellow and whose corolla mouth is not so widely open, had been spotted just beforehand and so we were able to compare the two species. The next treat was small white orchid *Pseudorchis albida* which we had been told was to be found on dry mounds at the edge of the reserve and we managed to find this although it is small and its tiny flowers were almost over. On the same mounds were found several specimens of fragrant orchid *Gymnadenia conopsea* with its very long thin spur and sweet scent. Most of the reserve is wet grassland and here we found most of the other orchids we were looking for, northern marsh orchid *Dactylorhiza purpurella*, common spotted orchid *D fuchsii*, heath spotted orchid *D maculata* and greater butterflyorchid *Platanthera chlorantha* with its convergent pollinia. We had been directed to a wood of deciduous trees to look for bird's nest orchid *Neottia nidus-avis* and, sure enough, there it was by the side of a path, entirely brownish, without any green at all and small scales instead of leaves. Two plants which we had seen on the previous day were present as a reminder that we were

in the Highlands, alpine bistort *Persicaria vivipara* and northern bedstraw *Galium boreale*. After lunch together in the sunshine, we went off on separate 'ploy's for the afternoon.

Jean Murray and Mary Clarkson

The Fortingall Yew Tree

10th July 2013

Today some visited the Crannog Centre at Loch Tay whilst Neville, Helena and myself decided to visit the ancient yew tree at Fortingall churchyard. Estimates put the age of this ancient tree between 2000 and 5000 years, although recent research into yew tree ages general suggests it is likely to be at the lower limit of 2000. It is reputed to be the oldest tree in the UK and possibly in Europe.

The tree has a massive trunk which has split into several stems making it look like several smaller trees. As a result of these splits, natural decay of the heartwood occurred which reduced the centre of the trunk down to ground level. More recently around 1800, it was said that marauding children used the tree as kindling for fires and even masses of the trunk were taken to make drinking cups and other curiosities. A wall was built in 1785 and later fencing to prevent further damage.

I have used Wikipedia for some of the above and whilst researching for this piece, I noticed mention in Wikipedia's Notes that they drew information from:

'2500 years' according to Augustin Pyramus de Candolle was noted by John Lindsay, 'On yews—with special reference to the Fortingall Yew', *Transactions of the Edinburgh Field Naturalists' and Microscopical Club* (1884/85:220-27)

Food here for thought and further research into the annals of the Edinburgh Field Naturalists' and Microscopical Club. However, when I was asked to write this note, I was planning on writing about the history surrounding the tree, and some of the legends linked to it. But, when I got into Wikipedia, and as soon as I saw mention of our Society's origins above, I dug deeper. I found this, on Candolle:

..... Candolle was the first to put forward the idea of 'Nature's war', writing of plants being 'at war one with another with species fighting each other for space and resources.



Charles Darwin studied de Candolle's 'natural system' of classification in 1826 when at the University of Edinburgh and in the inception of Darwin's theory in 1838 he considered 'the warring of the species',

In 1839 de Candolle visited Britain and Darwin invited him to dinner, allowing the two scientists the opportunity to discuss the idea.

One of these legends is that Pontius Pilate was born under the branches of the Fortingall yew tree and played there as a child. There are no official records of his birth place but there is a tradition linking his birth to a village in the Abruzzo region of Central Italy. Other claims are from villages in Germany and Spain.

Further reading reveals that, according to ancient lore, the yew was seen as an arcane repository, the tree of knowledge. Yew trees are often associated with ancient hill forts and this is borne out by the remains of an old hill fort called Dun Geal from the Gaelic 'the white fort'. At the time of Christ the Caledonian King, Metallanus, lived at Dun Geal and local tradition claims that Pontius Pilate was a relative. So, could the legend be fact?

We went into the parish church, 1901-02, designed on the Arts and Crafts style to harmonise with the rest of the village. I was immediately struck by the smell of wood coming from the old beams above my head. It rather naughtily crossed my mind that perhaps the mass of beams might actually have come from the yew tree outside, perhaps its damage was not all down to marauding children. Another ancient yew tree, The Great Yew Tree of Ormiston in East Lothian is also reputed to be 'the oldest tree in Europe'.

Our visit to Fortingall concluded with a visit to the hotel for beers and cold drinks.

Joan McNaughton with thanks to Wikipedia for research

Schiehallion Limestone Pavements

11th July 2013

Twenty one set off to the Dalradian limestone pavements located on the slopes of Schiehallion. The weather continued to be kind to us and provided a bright and clear, warm day with a slight breeze and a promise of a good jaunt ahead. We congregated in a lay-by along the Braes of Foss road close to Lochan an Daim and opposite a small disused quarry, where the limestone had previously been extracted presumably for the creation of agricultural lime.

After a quick scramble up the side of the quarry wall, we were treated to a spectacular westward view of over Kinloch Rannoch and beyond. The limestone pavements opened out on the gentle slopes and the members, joined by some latecomers arriving from a different direction, dispersed over the exposed rock ready to explore the clints and grikes.

Over one hundred vascular plant species were recorded throughout the day at this botanically rich site. Growing amongst the calcareous grassland was wild thyme *Thymus polytrichus*, common rockrose *Helianthemum nummularium*, eyebright *Euphrasia* agg, kidney vetch *Anthyllis vulneraria*, wild strawberry *Fragaria vesca* and fairy flax *Linum catharticum*. Highlights of this area included mountain everlasting *Antennaria dioica*, hair sedge *Carex capillaris*, alpine bistort *Persicaria vivipara*, sea plantain *Plantago maritima*, frog orchid *Coeloglossum viride* and a few individual plants of intermediate wintergreen *Pyrola media*.

In contrast, protected from grazing animals, the grikes provided familiar woodland herbs such as wood anenome *Anemone nemorosa*, herb robert *Geranium robertianum*, broad-leaved willowherb *Epilobium montanum* and dog's mercury *Mercurialis perennis* and a variety of ferns clinging to the rocks such as maidenhair spleenwort *Asplenium trichomanes*, green spleenwort *Asplenium viride*, hard fern *Blechnum spicant*, brittle bladder fern *Cystopteris fragilis* and a rare sighting of limestone fern *Gymnocarpium robertianum*.

The continuing brightness and blue sky created a hazy, relaxed atmosphere and those that were not botanising turned their faces to the sun to soak up its warmth. Others turned to their binoculars and enjoyed the site of a flock of ravens, circling buzzards and, in the clutch of birch *Betula* sp. trees alongside the limestone pavements, redpoll and mistle thrush. Much to the delight of everyone, the group was treated to spectacular views of a very accommodating golden-ringed dragonfly

Cordulegaster boltonii that posed happily for the in-house photographers.

Lunch was taken under the trees in the shaded area of the quarry, but the days' pull was too strong

and soon people were up finding an abandoned pied wagtail nest, watching active small heath butterflies *Coenonympha pamphilus*, bees and hoverflies, whilst the botanists began to wander across the road to a calcareous flush. Growing in the flush was a dense patch of round leaved sundew *Drosera rotundifolia* with open flowers. Other species included broad leaved cottongrass *Eriophorum latifolium*, few flowered spike rush *Eleocharis quinqueflora*, Scottish asphodel *Tofieldia pusilla*, common butterwort *Pinguicula vulgaris*, bog asphodel *Narthecium ossifragum*, star sedge *Carex echinata*, dioecious sedge *C. dioica* and a flowering fragrant orchid



Gymnadenia sp.

A satiated group took a leisurely walk along the roadside verge towards Lochan an Daim spotting field gentian *Gentianella campestris*, knotted pearlwort *Sagina nodosa* and mountain pansy *Viola lutea* on the way.

The group then separated into different directions, some continuing to focus on the roadside, a few walking around the lochan in its entirety and some stayed to watch several damsel and dragonflies including a few four-spotted chasers *Libellula quadrimaculata* flying along the water's edge. For the botanists amongst us, the loch edge provided a few highlights including lesser tussock sedge *Carex diandra*, white sedge *C. canescens*, slender sedge *C. lasiocarpa*, least bur-reed *Sparganium natans* and marsh speedwell *Veronica scutellata*.

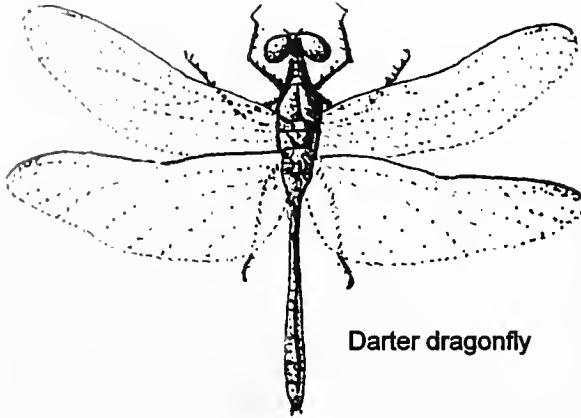
The day was rounded off perfectly when the group assembled again near the quarry to share their experiences and to squeeze in a last minute sighting of a lesser twayblade *Neottia cordata* just a surprisingly short distance away from the car park.

Katherine White and Laura Edwards

Lochan an Daim

11th July 2013

From the limestone pavement we were able to look down on this reed fringed loch to the north-east. I remembered finding a pair of breeding whooper swans there in the 70s: then, a real red-letter day. I thought it was déjà vu for a moment but the swans beneath turned out to be mutes with four downy cygnets. There were too, a string of Canada geese swimming in line. I suspect it also to have been a family party although the goslings were almost full grown. After lunch a few of us made our way across to the loch to look for the source of various Odonata we had been seeing that morning.



We were not disappointed, as close to the outlet stream we began to see up to a score of golden ringed dragonflies, which conveniently hung up in the heather banks providing lots of photo opportunities. The smaller four spotted chasers were also patrolling actively over the bottle sedges and came back to well used perches to be photographed .

Three species of damselfly were recorded; common blue, large red and an early emerald. Several dark green fritillary butterflies fluttered amongst the heathers and the bog myrtle, one or two pairs in copulation. Strangely we saw nothing of

the swans and geese at eye-level. I suppose they were hidden in the phragmites. As we departed a dabchick, still unseen, whinneyed again at our retreat.

Neville Crowther

Cluny House Gardens

12th July 2013

Near Aberfeldy, this garden is fantastic at any time but on that hot summers day it offered a cool woodland garden with a patch of sunny lawn and driveway. We were treated to a private tour with John Mattingley to areas less visited. The garden is a home to numerous red squirrels and a pine marten which they feed to allow visitors to get a close view of native mammals. The garden is an oasis in a large area managed for game birds just north of the River Tay.

The garden looks 'ungardened' with continuous ground cover and seeding of many of the herbaceous plants. The Mattingleys understand the growing conditions and their plants resulting in this natural look. Wendy Mattingley's parents Bobby and Betty Masterton created the garden often using seed from the Sherriff and Ludlow expedition to Bhutan in 1949. The conditions at Cluny are similar to those found in the collecting areas of Bhutan. The garden nurtures Britain's widest tree, the champion redwood *Sequoiadendron giganteum*.

Sarah Adamson

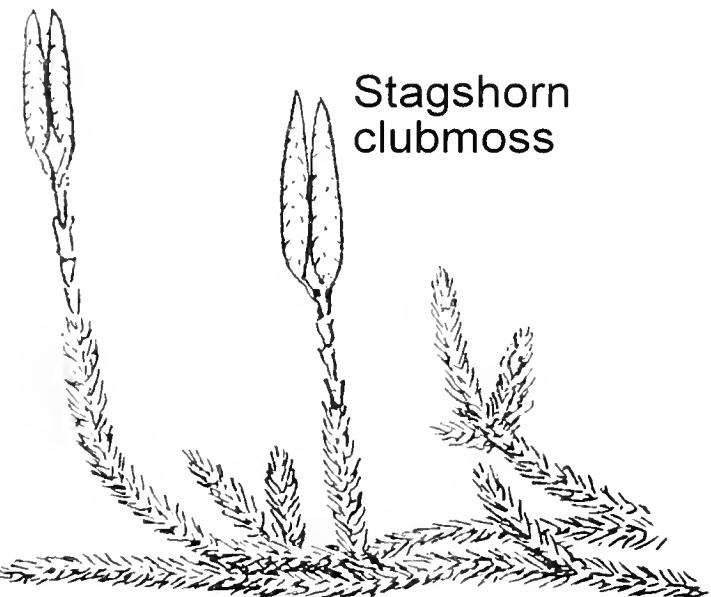
Hopes Reservoir, E. Lothian

19th July 2013

Leader Douglas McKean

Sixteen members turned out on a lovely sunny day.

It had hardly rained for about a month and so the ground was very dry and the stream quite low. The habitat here was sheep pasture dominated by common bent *Agrostis capillaris* and sweet vernal grass *Anthoxanthum odoratum*. A wet patch away from the track had a large clump of grey willow *Salix cinerea* ssp. *Oleifolia* along with some yellow flag iris *Iris pseudacorus*. We then moved to the river shingle where I had hoped to find musk *Mimulus moschatus* which had been seen on this stream in previous years but the exceptional floods of last year had left the shingle fairly bare and no musk was seen but it may still be on a side stream which we did not explore. The hill slopes above the stream were pinkish due to the dominant bell heather *Erica cinerea* and among it were clumps of juniper *Juniperus communis*. Nearer the stream were some large ash trees *Fraxinus excelsior* denoting the fact that there were base rich areas. Once we crossed the style and headed for an area of plentiful juniper we began to see a number of birds: 2 spotted flycatcher, 3-4 song thrushes, red grouse, wheatear, house martins and swallows, 3 oyster catchers, meadow pipit, linnet, pied wagtail and lots of redpolls could be heard before we saw them. The latter were probably breeding in the birch woods ahead of us. I mentioned that the birches were largely the aromatic brown birch with the small leaves. Stace says small leaved ones may have arisen by crossing with dwarf birch. This latter species still occurs in Cumberland and possibly still in Lanarkshire. This previously more widespread species may have occurred here in the distant past but muir burning may have extirpated it. We wandered to the foot of the dam through a grove of gean *Prunus avium* mainly in poor condition but in unripe fruit. The reservoir overflow had held grey wagtails on my recce visit but had now gone. About 50 herring/black-backed gulls and some black-headed gulls were on the water. We trudged up the steep path to the dam wall where we had lunch. A single common spotted orchid *Dactylorhiza fuchsii* and golden scaled male fern *Dryopteris affinis* were growing between the dam wall and the reservoir. This corner at the top of the dam had a nice rich wet flush with five Carex species, glaucous sedge *Carex flacca*, star sedge *C. echinata*, flea sedge *C. pulicaris*, carnation sedge *C. paucicea*, oval sedge *C. leporina*, slender St. John's wort *Hypericum pulchrum* and common bumble bees *Bombus sp.* We then followed a narrow bracken fringed single



Stagshorn
clubmoss

file path along the hillside dominated by wavy hair grass *Deschampsia flexuosa* and sweet vernal grass, cross-leaved heath *Erica tetralix* and rockroses *Helianthemum nummularium*. I was leading and I stupidly poked my stick into what I thought was a mass of dead leaves in a burnet rose bush *Rosa spinosissima*, and out came a swarm of wasps! Fortunately I escaped and the wasps rapidly calmed down and so no one was stung. Several butterflies were noted with several ringlets *Aphantopus hyperantus*, common blue *Polyommatus icarus*, small heath *Coenonympha pamphilus*, meadow browns *Maniola jurtina* and a dark green fritillary *Argynnis aglaja*. Lots of birch *Betula pendula* and *pubescens* ssp. *tortuosa*, hawthorn *Crataegus monogyna* and goat and grey willow *Salix caprea* and *cinerea* ssp. *oleifolia* now separated us from the reservoir. We eventually emerged from the wood and dropped down to a little stream which we crossed and carried on round the reservoir. At this end of the reservoir we passed a stand of lodgepole pines *Pinus contorta* var. *latifolia* and hybrid larch *Larix x marschlinsii*. This latter part of the walk was more typical moorland festooned with heather *Calluna vulgaris* with its attendant species: tufted rush *Juncus squarrosum*, hairy wood rush *Luzula pilosa* wood rush *L. sylvatica*, early hair-grass *Aira praecox*, blueberry and cowberry *Vaccinium myrtillus* and *V. vitis-idaea*, heath grass *Danthonia decumbens*, heath, lady's and fen bedstraw *Galium saxatile*, *G. verum* and *G. uliginosum* respectively, tormentil *Potentilla erecta*, bitter vetchling *Lathyrus linifolius*, eared willow *Salix aurita*, tea-leaved willow *S. phylicifolia*, heath wood rush *Luzula multiflora*, alder *Alnus glutinosa*, elder *Sambucus nigra*, common nettle *Urtica dioica*, golden scaled male fern *Dryopteris affinis*, broad buckler fern *D. dilatata* and stag's horn clubmoss *Lycopodium clavatum*. Denis Smith glimpsed our only lizard, Mary Clarkson recorded *Amanita crocea*, Vladimir *Cardamine amara*, while David Adamson and I saw green tiger beetles and I saw 2 siskins. We were strung out over 100m making it difficult to keep in touch with everyone and keep the procession going. Thanks to everyone taking part and especially to David Adamson who shepherded from the rear of our group. I freely admit that I do not record as assiduously as Jackie but who does? Dorothy kindly offered us tea in her brother's cottage in Gifford and there we saw more natives in the garden pond: bogbean, round-headed club-rush, *Scirpoides holoschoenus*, white water lily, common duckweed, yellow tufted sedge *Carex elata* and a scarce garden escape *Lysimachia ciliata* rather than *L. punctata*.

Douglas McKean

B.S.B.I. Recorder Emeritus

Water of Leith

24th July 2013

Leader Peter Maitland

This was our second afternoon midweek trial excursion during the year. Tom Delaney had obtained the services of Scotland's pre-eminent ichthyologist, Dr Peter Maitland, who not only brought two experienced assistants with him but had paid initial visits to set traps both that morning and the day before.

Eight members and the three fish experts assembled by the Water of Leith Centre. We only had to cross the road and walk along the riverside for a hundred metres to find the first trapping site. Three 'eel' traps had been set, one sadly being stolen during the night. A few bottle traps and three large hand nets added to the methods used. Peter explained that there are about 40 species of freshwater fish in Britain, of which 16 are non-native. Rivers support less than half the species found. His expectation was for between four and seven species to be captured, although he had not trapped here before. We quickly obtained four species. First were about ten bullheads, known in England as miller's thumbs. They have only recently appeared in Scottish waters and our hosts were anxious to discover how successful the invasion had been. It became evident during the next



Stickleback



Minnow



Bullhead or Millers Thumb

couple of hours that they were extremely common. Several brown trout were caught, but not of an edible size! Numerous three-spined sticklebacks appeared in the traps and nets, and Peter opened a jam jar to show us its much rarer relative, the nine-spined stickleback from East Lothian, which he also thought there would be a chance we might find in this river. The final species was as expected, the minnow of which there were large shoals. On our wish list, with a good chance of being found, were stone loach and brook lamprey. We visited two other sites but were unsuccessful in improving our score. Loaches are nocturnal and shelter under stones during the day feeding along the river bed aided by prominent barbels, the tentacle like sensory organs. Britain has three species of lamprey which are so primitive that many fish biologists don't consider them to be fish. They are our most primitive vertebrate. Eel-like in shape they are jawless and attach themselves by a large sucker to prey and have a line of gill openings laterally behind the head region.

Other species which were discussed as there were recent records from the Water of Leith were eel, salmon and grayling. The elvers move upriver in March-April so were not expected. As the cleanliness of the river has improved in the last few decades salmon have been found spawning in the lower part near Leith, unable to negotiate weirs to reach this far. There are no fish-ladders here. Another salmonoid species is the grayling, much admired by anglers but rare in these waters. Tom took a large sample of oyster mushrooms from a fallen tree on the river bank. Afterwards he described them as delicious fried in butter. A final record of interest was a kingfisher seen the day before by Tom and Peter on their reconnaissance and seen again today by Sarah Adamson.

Neville Crowther

Headshaw Haugh

27th July 2013

Leader Michael Braithwaite

It was a small but cheerful party of seven that met at Red Brae on the A68 to explore the Headshaw Burn. A bank by the A68 was visited, carved out when the road had been realigned about 1980. Here bryophytes and lichens had been the first to colonise the bare rocky slope and clubmosses had colonised by 1990. The slope is now more vegetated and the alpine clubmoss *Diphasiastrum alpinum* appeared to have died out while there were still some luxuriant fertile plants of stag's horn clubmoss *Lycopodium clavatum*. Proceeding down to the burn, two of the party sadly felt unable to tackle a formidable new fence, and even those who crossed were constrained by the fence as some of the richer burnside flushes went unvisited as that would have meant repeatedly recrossing the fence. The fine juniper colony at Headshaw Haugh was admired but the common cow-wheat *Melampyrum pratense* recorded here in the past was not refound. The bracken was at times difficult to penetrate and contained an abundance of craneflies and common geometrid moths. After making a fair species list a delightful spot was found for lunch where some extra species were added such as spring sedge *Carex caryophyllea* with pill sedge *C. pilulifera* not far away and wood cranesbill *Geranium sylvaticum* by a crag. The biological interest of our picnic site was further enhanced by a male common hawker patrolling its beat, a couple of dark green fritillaries *Argynnis aglaja* and a dipper disturbed from its own picnic.

Venturing further up the burn the hybrid rush *Juncus x kern-reichgeltii* = *J. conglomeratus x effusus* was spotted and both meadow fescue *Festuca pratensis* and tall fescue *F. arundinacea* were noted by the burn. As it had become very humid and rain was threatening we turned for the road up a bracken-free bank where an unexpected colony of rockrose *Helianthemum nummularium* was discovered. A family party of oystercatchers 'kleeped' insistently above us, reinforcing the 'go home' message. Higher up we crossed a field of rampaging bullocks and thigh high thistles, where peacock *Inachis io* and small tortoiseshell *Aglais urticae* butterflies boosted our lepidopteran list. A useful contribution had been made to the last stages of the Botanical Society of the British Isles (BSBI) resurvey of Berwickshire. Meadow crane's bill *Geranium pratense* in the lay-by on the A68 was new to the Berwickshire part of hectad NT45 as was the hybrid rush. The rockrose, meadow fescue and wood crane's bill were new to the Headshaw Haugh botanical site.

ME Braithwaite, with small contributions on animal life by N.Crowther

Habbies Howe

31st July 2013

Leader Lynn Youngs

After a day of glorious sunshine it was disappointing that the rain started at the exact time 7 members departed from Carlops for the evening walk to Habbie's Howe. However, this did not spoil a very enjoyable walk in the delightful and varied landscape of Habbie's Howe, the gorge through which the North Esk River flows.

The very quiet road to Kitleyknowe was lined on both sides with a variety of plants including Yorkshire fog *Holcus lanatus*, soft rush *Juncus effusus*, monkey flower *Mimulus guttatus*, meadow sweet *Filipendula ulmaria*, water forgetmenot *Myosotis scorpioides*, lesser stitchwort *Stellaria graminea*, common spotted orchid *Dactylorhiza fuchsii*, common harebell *Campanula rotundifolia* and a profusion of mature ground elder *Aegopodium podagraria*. A number of silver ground carpet moths were also seen flying along the verges.

Inside the gorge we found wood horsetail *Equisetum sylvaticum*, enchanter's nightshade *Circaeae lutetiana*, hard fern *Blechnum spicant*, common figwort *Scrophularia nodosa*, common valerian *Valeriana officinalis*, wood speedwell *Veronica montana*, opposite leaved golden saxifrage *Chrysosplenium oppositifolium*, lesser burdock *Arctium minus*, melancholy thistle *Cirsium heterophyllum* and the delicate but beautiful oak fern *Gymnocarpium dryopteris*. The non-native pick-a-back plant *Tolmiea menziesii* was growing in abundance along both sides of the river banks. The fungus red cracking bolete *Xerocomus chrysenteron* was also spotted.

Birdlife was quiet but we did see a delightful family of wrens flying close to the path and a buzzard was seen as we walked back to Kitleyknowe. Habbie's Howe is the setting for Allan Ramsay's "Gentle Shepherd" and during the walk we saw two excerpts from this classic work carved into stone panels.

The second plaque has a text from

The Gentle Shepherd Act I:

"A flowrie howm between two verdant braes,
Where lassies use to wash and spread their claiths,
A trotting burnie wimpling through the ground,
Its channel pebbles, shining, smooth and round
Jenny – Come, Meg let's fa' to work upon this green
This shining day will bleach our linen clean
Peggy – Gae fairer up the burn to Habbie's Howe,
Where a' that's sweet in spring and summer grow".

Lynn Youngs

Reston, New Mains

3rd August 2013

Leader Tom Delaney

During a pause in our journey, at Torness, we saw a yellow and several pied wagtail on the grass verges and in a repeat of last year, a pair of oystercatchers with a juvenile. Down the A1 at the Oldhamstocks junction we looked for orchids but sadly a savage cutting regime had removed any sign of bee orchid *Ophrys apifera* and most of the northern marsh orchid *Dactylorhiza purpurella*. We arrived at New Mains to be greeted by David Graham, a successful farmer with a passion for wildlife. His enthusiasm over the last ten years has made the farm a byword for new records of birds, dragonflies and other insects. He has constructed two groups of ponds and scrapes, which has resulted in the first Scottish records of several Odonata including breeding emperor dragonflies *Anax imperator*. His species count is impressive at 16.

Despite a good weather forecast, the clouds scudded across from the west, bringing occasional showers and little sun. Disappointingly there were only five members in attendance, but we were able to observe, thanks to David's eagle eyes, hundreds of damselflies of three species, emerald

Lestes sponsa, common blues *Enallagma cyanigerum* and blue-tailed *Ischnura elegans* sheltering in the flower meadows, however there were barely any on the ponds. There were a few common darters.

Several flower meadows and strips of set-aside were heavy with blossom. The knapweed *Centaurea nigra* particularly attracted hundreds of bumble bees and other insects. It was nice to see many red-tailed bumblebees and all three common white butterflies, the small pyralid moth *Udea lutealis* and the geometrid, striped broadbar moth. Along a lane lined with tree sparrow boxes, David explained that in winter he spreads grain attracting several hundred yellowhammers, reed buntings and tree sparrows. Last winter he had over a thousand bramblings. Altogether he grows over 2 acres of 'bird cover' annually. A winter visit is called for.

Although our aspirations for novel Odonata records were not satisfied, it had been an exciting visit and a prime example of what farming with conservation in mind can achieve.



Tom's plan B was put into operation after a late lunch and we drove south and east to several localities on the Whiteadder, where banded demoiselles *Calopteryx splendens* had been reported at their most northerly UK site. It was well after 4pm when we arrived at Huttons Bridge – our 'last chance saloon'. We wandered the banks pleased to find flowering rush *Butomus umbellatus*, burnet saxifrage *Pimpinella saxifraga*, agrimony *Agrimonia eupatoria* and lots of brown and white butterfly species. Sue and I had given up and were heading back to the car when yells and whistles

from Tom and Sarah-Louise announced their discovery of a pair of demoiselles in a very small area of river bank with all the required attributes of riffles with bright green ribbons of water crowfoot *Ranunculus aquatilis*, overhung by osiers *Salix spp.* and all illuminated by the late afternoon sun. We spent the next hour watching the courtship interplay, copulating pairs and egg-laying by a submerged lone female for at least 10 minutes. This all took place in an area of 15m x 5m. What a fantastic conclusion to the day!

Neville Crowther

Tay Reeds and Balathie Woods

10th August 2013

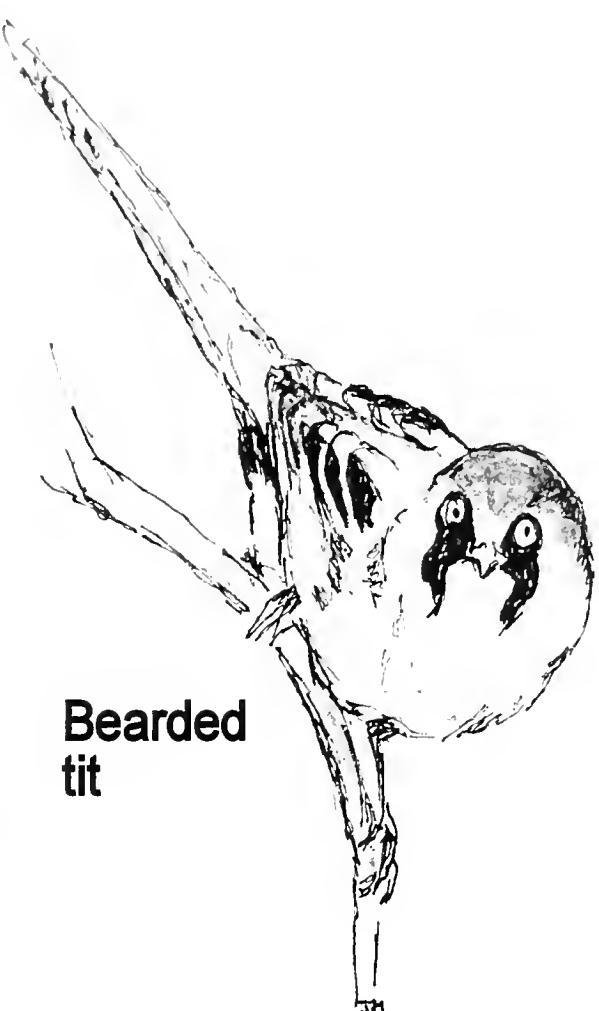
Leader Tom Delaney

The last bus excursion of 2013 extending to three years the excursions given financial support from Margaret Mowat's dedicated bequest. The driver from Hunter's was quite gracious about being asked to make four different stops, most in constricted and remote places.



St Madoes with its florally rich gardens and their exotic 'castaways' in the village of Inchyra was our first stop. Consequently, the insect numbers, particularly bumblebees, gave lie to the recent reports of bee extinctions.

A single plant of *Eryngium* sp had collectively perhaps 40 individuals, queens, workers and drones, of several species, including *Bombus jonellus*, *B. lapidarius*, *B. lucorum*, *B. pascuorum* and *B.*



hortorum. Other escapees attractive to insects included, cone flowers *Rudbeckia sp*, Himalayan balsam *Impatiens glandulifera* and hollyhocks *Alcea rosea*. Little bird life was seen on the river or in the reeds, but yellowhammers, sedge warblers and willow warblers were still in song.

On to Powgavie Reed Beds and from the northern embankment, around thirty bearded reedlings were seen in total, but it took some time to get our eyes in. Joanie's ears were working better picking up their pinging calls. It belongs to a tropical family called Parrotbills and only recently has spread from the SE of England. A female marsh harrier made two long passes along the reeds to our front. It was possible to see a wing tag on the top of each wing, one red and one yellow. A query to the Tay Ringing Group revealed that it was ringed this year, at this site and was a juvenile. Less notable were reed buntings, yellowhammers and faraway oystercatchers.

A short stop at Stanley Mills with an hour to while away before our hairstreaks were performing, we went to this Historic Scotland site which resembled New Lanark in many ways. As well as a coffee stop, there was considerable historical interest, the working mill with water powered machinery, lades and extraction from the Tay.

Our final destination was the Oak Wood to the north of Balathie House. Purple hairstreak *Neozephyrus quercus* is one of the rarest butterflies in Scotland and, additionally, its habits make it extremely difficult to observe, spending much of its existence in the high canopy of oaks. Patience and good planning are essential to find them. They start to 'dance' in the tree tops at about 3.30pm so binoculars are needed. Until then, they feed on aphid 'honeydew' and are almost invisible. Most of us were not confident as we waited below the high canopy, but Tom and Sarah-Louise reassured us and, then, for about an hour the entertainment delighted and excited us. Trooping back to the bus at about 5pm, the driver seemed less ecstatic, but we did get back home by the scheduled 6 o'clock.
Neville Crowther

Castleland

18th August 2013

Leader David Adamson

From Edinburgh, Castleland is hidden behind the familiar hill-scape of Caerketton and Allermuir. It is separated from the southern Pentland ridge by the deep valley occupied by Glencorse Reservoir. Castleland is known for its well-preserved iron age hill fort, which is in the care of Historic Scotland, and for the Army firing ranges on its southern slopes. On a Sunday in summer the car park at Castleland farm is a popular meeting point for walkers and mountain bikers, and it was busy when eight of us assembled at one o'clock for our excursion. We followed a clockwise circular route of around four miles that had been taken from an old Pentland Hills Ranger Service calendar.

For our first mile we strolled on a gentle path that took us west, high above Glencorse Reservoir. In the sunshine, sheltered from the wind, we looked at some of the sedges, rushes and other pathside plants. Neville pointed out a small heath *Coenonympha pamphilus* butterfly on the path, and we then stopped to watch wheatears that were keeping ahead of us on rocks and fence posts. As the path turned to the north-east, the following wind made the gradual ascent less arduous. A kestrel hovered above the top of the hill before vanishing on the far side. Some white-tailed bumblebees, *Bombus lucorum*, were collecting pollen from the heather; others were resting and sheltering on the path.

Rain had not been forecast, but it arrived as we reached the highest and most exposed part of the walk at Fala Knowe. It was of the horizontal variety, and cold, and natural history was forgotten as we returned to the cars at a pace more associated with walking groups, if not Usain Bolt. Therefore we did not see much of the juniper exclosures in the valley between Castleland and Woodhouselee Hill. Victor Partridge of the Ranger Service told me that these



were constructed about eighteen years ago. A researcher from Bush took cuttings from local juniper trees, propagated the cuttings, and then planted them in the exclosures to find out what form they took. There is one rectangular enclosure containing some relatively large juniper bushes, and an adjacent enclosure that appears to be empty. A third triangular enclosure, which is some distance away, contains only three or four bushes.

After we had visited the hill fort and its underground earth-house en route to the car park, Sarah produced a tin of banana cake that we all but emptied before going home to dry clothes.

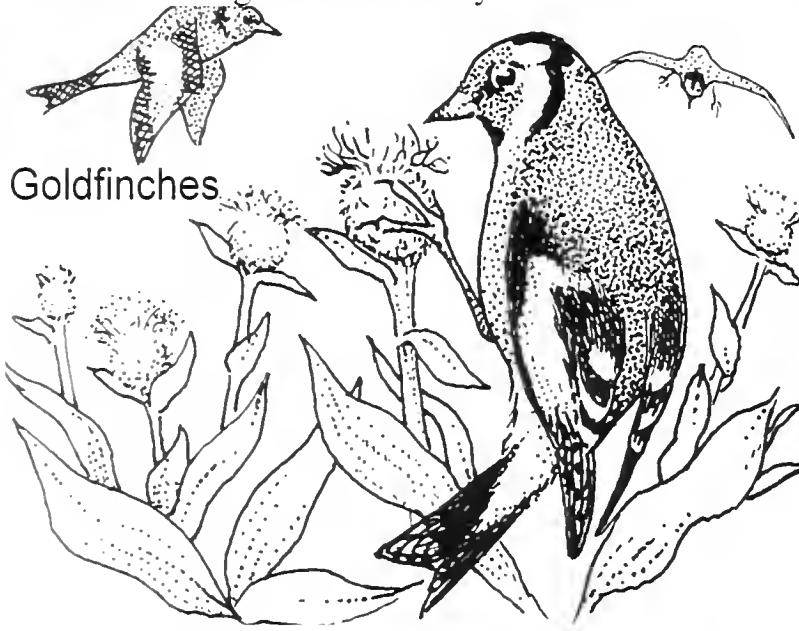
David Adamson

Townhill Country Park

24th August 2013

Leader Jean Long

North of Dunfermline lies Townhill Country Park, a coalmining area until the closure of Muircockhall Colliery in 1970. The Town Loch, Townhill Wood, the Village Park and Townhill Muir were designated a Country Park in 1992 and the rail network adopted to provide paths.



Goldfinches

were more plants of open ground black medick *Medicago lupulina*, hairy tare *Vicia hirsuta*, perforated St John's Wort *Hypericum perforatum* and creeping cinquefoil *Potentilla reptans*.

A modern apple orchard was navigated on mown pathways through a variety of grasses, rushes, *Juncus sp* and red bartsia *Odontites verna*. Ena drew our attention to the tiny cream coloured larvae cases of the micro-moth *Coleophora alticolella*.

The wildflower meadow provided a habitat for butterflies and bees, for voles and field mice to hide in, along with frogs and toads amongst common spike rush *Eleocharis palustris*, jointed rush *Juncus articulatus* and yellow meadow vetchling *Lathyrus pratensis*.

The day improved for a lochside lunch entertained by a waterskier and a number of herons on the far side of the loch. Chiffchaffs and whitethroats were the sound of the day. After lunch towards the west end of the loch there was a lot of marsh woundwort *Stachys palustris* and amphibious bistort *Polygonum amphibium* in the water. A swathe of purple loosestrife *Lythrum salicaria* provided a splash of colour contrasting with the yellow monkey flower *Mimulus guttatus*. Sneezewort *Achillea ptarmica* offered some extra interest. The sun encouraged the insects. David Adamson identified six species of bumblebee. Ena pointed out marmalade hoverflies *Episyrphus balteatus* and sunflies *Helophilus pendulus*. Various common butterflies were seen throughout the afternoon. A few minutes were spent observing a nearby great crested grebe.

We returned to Townhill and made our way into the wood. Although there has been woodland in Townhill for centuries the majority of the trees standing today were planted between 1914 and 1939. Dotted throughout are a number of information boards.

We passed an interesting area – hummocks of *Polytrichum commune* surrounded by hollows of *Sphagnum* spp. There was chickweed wintergreen *Trientalis europaea* which I now know have

Along one of these paths a group of six set off on a dull morning. The tarmac track and its verges and hedgerows support a variety life including welted thistle *Carduus acanthoides* and mugwort *Artemisia vulgaris*. Leaving this path we found waste ground specialists like goldfinches, chiffchaffs and whitethroats exploiting sticky groundsel *Senecio viscosus*, welsh poppy *Mecanopsis cambrica* and marjoram *Origanum vulgare*.

By the loch were water mint *Mentha aquatica*, angelica *Angelica sylvestris* and yellow iris *Iris pseudacorus* was fruiting and an area of post-industrial wasteland where we walked through the broom, *Cytisus scoparius*. There

spherical seed capsules which split into five parts when ripe. The forest circular path bounds the south side of the wood but we left it to go onto Townhill Muir which was designated a Wildlife Site in 1988. The heather was in full bloom with bumblebees and butterflies were enjoying the sunshine as much as we were. Neville was pleased to find a few triangle plume moths *Platyptilia gonodactyla*, small copper butterflies *Lycaena phlaeas* and yellow shell moth *Euphyia bilineata* were seen flying around. The views south towards the Firth of Forth and beyond were clear, and nearer to us we could just see the top of the Hill of Beath. Bilberry *Vaccinium myrtillus* and yellow tormentil *Potentilla erecta* were growing among the heather.

We left the wood onto an open waste stony area with pineappleweed *Matricaria matricarioides*, corn marigold *Anthemis arvensis*, weld *Reseda luteola*, parsley pier *Aphanes arvensis*, redshank *Polygonum aviculare* and strawberry clover *Trifolium fragiferum*. It was of greater interest however to find small toadflax *Chaenorhinum minus* and lesser swine cress *Coronopus didymus*.

With time against us the day ended with the group happy to have seen a new area and learned much from each other.

Jean Long

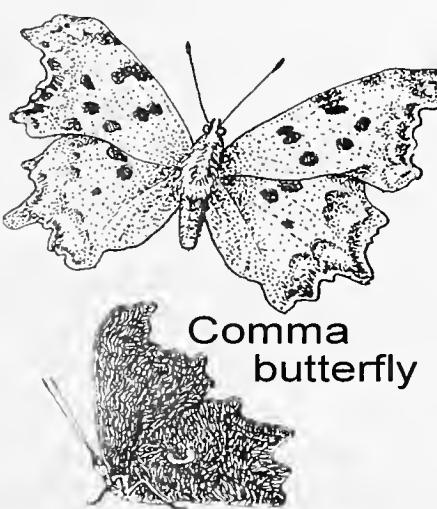
Tynninghame Coastal Walk

31st August 2013

Leaders Katherine White and Laura Edwards

A group of 13 members gathered in the sunshine at Limetree Walk car park anticipating a lovely weather day for a coastal walk at Tynninghame. The walk started heading south along the woodland path towards the coast where everyone was treated to close views of speckled wood butterflies *Pararge aegeria*. Around 40 individuals were recorded during the day. Once at the coast, the group walked anticlockwise around Sandy Hirst Spit, exploring the saltmarsh and beach strand line plant communities with species such as sea-milkwort *Glaux maritima*, common glasswort *Salicornia europaea* agg, sea plantain *Plantago maritima*, sea arrowgrass *Triglochin maritimum*, sea wormwood *Artemisia maritima* and sand sedge *Carex arenaria*. Many of the plants had gone over with the exception of occasional thrift *Armeria maritima*, sea aster *Aster tripolium* and sea spurrey *Spergularia* sp. flowering in the saltmarsh area and an abundance of the vibrant yellow flowers of the perennial sow-thistle *Sonchus arvensis* along the strand line.

It was breezy on the coast, but with the warm sunshine there were many insects and birds flying about with highlights including close views of a small cluster of dunlins and ringed plovers resting on the rocks. Following the walk around the spit the whole group stopped for lunch on the beach in an area where bumblebees and butterflies were flitting amongst the perennial sow-thistle and where some members spent time watching a female common darter dragonfly *Sympetrum striolatum* resting on a rock close by.



Comma butterfly

After lunch, following the coastal path north towards St. Baldred's Cradle the group encountered a few wall brown butterflies *Lasiommata megera* and also stopped in the sunshine to take in the spectacular views of the East Lothian coast line towards Bass rock. Here we had great views of diving gannets, sandwich terns, turnstones, eiders and a glimpse of a wheatear. Of botanical interest, St. Baldred's Cradle was where we discovered lesser hawkbit *Leontodon saxatilis* flowering.

After a brief time bird watching the group carried on along the beach at Bathan's Strand and headed back to the car park continuing to see a variety of butterfly species including peacock *Inachis io*, comma *Polygonia c-album*, small copper *Lycaena phlaeas*, small tortoiseshell *Aglais urticae*, large white *Pieris brassicae* and green-veined white *P napi*.

The day ended with many stopping at Smeaton Nursery Gardens to enjoy a post excursion cup of tea and essential slice of cake.

Katherine White

Penicuik Estate

7th September 2013

Leader Neville Crowther

Sixteen gathered under blue skies and sunshine after overnight rain. The Penicuik Estate path network radiates from Penicuik House, a Palladian mansion, which was destroyed by fire in 1899. Information boards hanging on the temporary fence that surrounds the ruin's high walls tell all about the Clerk family and its contribution to the history and landscape of the Penicuik area. One of the many paths in the designed landscape led to the most natural area of the estate, the valley of the North Esk.

Although the main flowering season was over, melancholy thistle *Cirsium heterophyllum*, was still unmistakeable, towering above all the other herbs in the rich riverside meadow. The angelicas, more than a metre high were at their most impressive, and the delicate tracery of wood horsetail *Equisetum sylvaticum* attracted attention.

Our mycologists gravitated towards the nearby trees where they found mycorrhizal fungi that included the *Russula claroflava*, *R. mairei*, *R. queletii*, and *R. nigricans*, larch bolete *Suillus grevillei* and both *Boletus erythropus* and *B. chrysenteron*; and the violet stiped *Cortinarius collinitis*. An unmistakeable saprophore was *Peziza succosa* and amongst carpets of pine needles were swathes of the little wheel toadstool, *Marasmius rotula*. Several of the older beech trees had glistening strings of the porcelain fungus *Oudemansiella mucida* climbing their trunks. Many of the fungi were displayed on a tree stump at lunchtime to allow braver members to try to name them. Finally, ergots infected a range of grasses: *Claviceps purpurea* was found on *Holcus mollis*, *Phleum pratense*, *Dactylis glomerata*, *Phalaris arundinacea* and *Festuca arundinacea*, while the host of *Claviceps nigricans* was *Eleocharis palustris*.

We took lunch by the Low Pond, where a family of dabchicks entertained. For many of us the striped heads of the juveniles were novel. Helen had reported seeing nuthatches, but other bird life was sparse. Some of us were searching for rusts and galls on plants. However I was attracted to knapweed flowers in search of bumblebees, and found many males either feeding or still sheltering after the recent rain. Most were common carders *Bombus pascuorum*, but among them were two species of cuckoo bumblebee *B. sylvestris* and the rarer *B. campestris*. There were also many small copper *Lycaena phlaeas* butterflies active in the sunshine, competing with the bees for nectar. One butterfly was knocked off a flower when a bee landed. Other pollinators included a large hoverfly *Helophilus pendulus* (image right) resembling a wasp in the yellow and dark bands on its abdomen.

After lunch we crossed to the south bank of the Esk, where the meadow widened and became dominated by devil's-bit scabious *Succisa pratensis*.

After a very heavy shower of rain I was fortunate to find an unusual bumblebee sheltering under a scabious flower. This was the tree bumblebee, *Bombus hypnorum*, a species that has been moving north into Scotland in a similar manner to the speckled wood *Pararge aegeria* and wall brown *Lasiommata megera* butterflies seen at Tynninghame last week. The tree bumblebee arrived in the UK in 2001, and the first Scottish record was in a Lennoxtown garden in June of this year.

Quite a novel find was a twin spot plume moth *Stentoptilia bipunctidactyla* which also has *Succisa pratensis* as its larval food plant. All year the 7-spot ladybird has been virtually the only one reported, but today Stephan found a 10-spot *Adalia 10 punctata* and Ian discovered the small spotless larch ladybird *Aphidecta oblitterata*.

The heavy rain shower had accelerated the end to the outing, as most of the party took the most direct route to the car park. For the second consecutive week our outing was followed by coffee and cakes, this time in a pleasant Penicuik cafe. Finally, our grateful thanks to Neville for leading an outing which had a wide range of natural history interest.

David Adamson with thanks to Neville for sections on fungi, moths and ladybirds, and to Mary for the information on ergots.



Vogrie Country Park

21st September 2013

Leader Chris Ellis

The Field Studies Council had recently published an introductory guide* on the process of identifying urban lichens. Chris wanted to test its effectiveness with a group of ten relative novices in a suburban setting.

Lichens of tree trunks, inevitably dominated our search to begin the test. A start was made to find examples of the three main morphological types. We quickly found *Ramalina farinacea* a pale green tufted example of a fruticose species. Foliose ones included *Xanthoria parietina* probably the most common yellow/orange lichen. We were shown a chemical test using a 10% potassium hydroxide solution (K+) which produced a claret response. Also in the same group, *Physcia adscendens* is characterised by prominent cilia around the edge of thallus, *Parmelia sulcata* where we were introduced to a reproductive feature called soredia and *Melanelia subaurifera*. The third group of crustose species, very common on smooth barked young trees, included *Lecanora chlarotera*, *Lecidella elaeochroma*, *Opeographa atra* and *Arthonia radiata*, where each was distinguishable by the different forms of apothecia, the structures containing the sexual ascospores. We came across species of a less common but particularly difficult group of leprose lichens which are powdery with no discernable thallus structure. A pale grey-green species *Lepraria incana* was found on both rocks and tree trunks. A second amorphous lemon-yellow lichen, *Chrysotrichia candelaris* was seen in cracks in the bark of ageing broadleaves, particularly oak and ash.

A ‘late-entry’ to this initial system of classification was a squamulose lichen with a thallus of many small flakes, and upstanding podetia bearing apothecia was *Cladonia fimbriata*. This species belongs to a genus usually characterised by pale coloured podetia with either red or brown apothecia, and sometimes without obvious squamules.

A tree belt of very old beech trees was approached as a site where a number of more varied lichens were expected. Two lichens of the genus *Pertusaria* were examined. Both were crustose and covered large areas of the lower trunk; *P. pertusa* was grey-white and had warty lumps, with small openings leading into submerged apothecia. Another, the dirty green *P. flavidula* was covered with dense isidia, a vegetative form of reproductive body. Also on these same trunks were white crustose layers of *Phlyctis argena*, which gave a K+ reaction but only changed slowly, first to yellow and after a few minutes to red.

We finished the afternoon by searching the graveyard of Cumming Dewar who died 1908, a previous owner of the estate. The surrounding stone walls were very productive, with many crustose and the odd foliose lichen. Most prominent were *Candelaria* and *Caloplaca* species, both with yellow/orange colours. A black-brown *Verrucaria nigrescens*, related to several similar species common on seashore rocks, was distinctive. A widespread and attractive lichen called *Tephromela atra* had a grey crazed thallus, with ‘jam-tart’ like apothecia, black with a white rim.

By then we were saturated with data and it was 4 o’clock, so we headed for home to digest and, perhaps, remember the contents of our tour. The general opinion appeared to accept that the guide would be a helpful starting point for the study of a difficult and initially obscure subject.

Neville Crowther

*The OPAL guide to common urban lichens is a four-fold water resistant booklet. The Open Air Laboratories (OPAL) network is open to anyone with an interest in nature. Lichen surveys help to monitor air quality and rely on citizen science to build up a picture of lichen distributions. OPAL conduct many surveys and can be found on their website www.opalexplorernature.org.

Moncreiffe Hill

28th September 2013

Leader Wilma Harper

A small but enthusiastic group made their way on a somewhat misty morning to the north side of Moncreiffe, where the Woodland Trust has made a good network of paths with a few interesting sculptures and carvings lurking in the trees - but probably meant to intrigue folk about 70 years

younger than some of our party. Further on down the track, we found the best 'sculptures' were those of old tree roots standing vertical beside the path, remarkably impressive. Our interests tended to be more botanical, bugs and butterflies, and the 'fun-gals' had a field day. The best finds being *Spathularia flava*, well-named for its spatula-like shape, *Hygrocybe reidii* and another unusual meadow waxcap *H. vitellina*, as well as lots of ergot on the different woodland grasses. Sadly the birders among us didn't fare so well for species, though we did hear jays. The weather gradually improved to become surprisingly mild for late September, and also windless, which made it very good for flying creatures including a handsome peacock butterfly *Inachis io*, but most of us agreed the star turns were the burying or sexton beetles *Nicrophorus vespilloides*, surprisingly numerous considering they are relatively hard to spot - and dozens of ladybirds hiding in pine twigs, rolled-up willow leaves and other safe refuges. We managed to see at least 40 plants still in flower but the most interesting plant, well spotted by David as it was minute, was a *Filago* sp. The hill also boasts two forts, both excellent view points. The day was rounded off with a welcome cuppa at Bridge of Earn, where we sat outside enjoying the sunshine and the view of the hill we'd just been on. All in all a very pleasant day out.

Alison Wilson

Firth and Auchendinny

12th October 2013

Leader Mike Richardson

About 24 members met at Robert Lawrie's yard in Auchendinny to walk or be ferried up to Firth House, the starting point for this foray, marking the 100th anniversary of a similar meeting of the precursor Edinburgh Field Naturalists and Microscopical Society. That meeting was led by Mr D A Boyd and they found the woods of Firth produced so many fungi that they did not make it to Auchendinny. A short circuit at Firth House kindly suggested by the owner Mrs Gray around deciduous woodland, a paddock with conifers, grounds of the house, pasture and the lawn, provided plenty of habitats and fungi. Much fallen and rotting wood produced plenty of the woodrotters, but few lactarius, russula and cortinarius, a feature noted in the report of 100 years earlier, but I suspect our shortage was due to limiting our time at Firth so that we would visit Auchendinny as well. A list was produced, about half the size of Mr Boyd's from a century earlier, but it is by no means exhaustive; the usual suspects were there – sulphur tuft *Hypholoma fasciculare*, a honey fungus *Armillaria* sp., *Clitocybe fragrans*, *Laccaria amethystina*, *Lacrymaria lacrymabunda*, *Lactarius blennius*, *Lepista nuda*, *Mycena galericulata*, *M. pura*, *Pholiota squarrosa*, birch tree polypore *Piptoporus betulinus*, *Lycoperdon pyriforme*, *Stereum hirsutum* and *S. rugosum*. A particularly fine log at our starting point produced some fine *Pluteus phlebophorus*, as well as *Ganoderma applanatum*, *Phlebia* (formerly *Merulius*) *tremellosa* and *Trametes versicolor*. The lawn, with surrounding trees, produced one specimen of *Hygrocybe calyptiformis*, *Clitopilus prunulus*, *Boletus edulis* and some fairy clubs.

Leaving Firth, most of the party made their way through the woods across the steep glen of a southern tributary of the River North Esk, led by William McCulloch, the owner of Auchendinny, and his two young sons. The rest of the party returned to their cars and drove round to Auchendinny, where Mr McCulloch had kindly offered us the use of his garden furniture and lawn for a picnic place. After lunch we confined ourselves to the large grass field between house and woods, with some old fallen trees. The grassland was particularly rich in waxcaps, entolomataceae and club fungi – *Hygrocybe ceracea*, *H. laeta*, *H. pratensis*, *H. psittacina*, *H. virginea*, *Entoloma conferendum*, *E. porphyrophaeum*, *E. sericella*, *Clavaria fragilis*, *C. fumosa*, and *Clavulinopsis fusiformis*. Other regulars were ergot *Claviceps purpurea* and tar spot *Rhytisma acerinum* on sycamore



leaves. The dead trees produced *Gloeophyllum sepiarium*, *Auricularia auricula-judae*, *Meripilus giganteus*, *Mycena haematopus*, *Oudemansiella mucida*, oyster mushroom *Pleurotus ostreatus*, and more *Lycoperdon pyriforme* and *Piptoporus betulinus*.

Thanks to Mary Clarkson for helping with the pre-foray reconnaissance, and to Mr and Mrs Gray and Mr and Mrs McCulloch for allowing us to visit and collect on their properties, and for being so helpful.

Mike Richardson and Mary Clarkson

Beecraigs Walk

26th October 2013

Leader David Adamson

This outing was not meant to be a fungus foray. It was supposed to be a brisk walk, with occasional pauses to allow participants to identify some mushrooms or toadstools. However the intention and the plan often differ, or 'aft gang agley' as a poet put it.

Since we had arrived at Beecraigs Visitor Centre half an hour ahead of schedule, Vladimir and I wandered down to the nearby reservoir. This is surrounded by mature conifers below which, ten days earlier, there were no fungi to be seen. Today, colourful *Russula* and other mycorrhizal species abounded on the needle-covered ground, an indication of things to come.

After a brief introductory talk in the visitor centre car park, we drove the short distance to the start of our walk at Balvormie car park. As we walked south-west towards our intended destination we kept passing, and being passed by, a large group of keep-fit enthusiasts. No-one defected to them, and when we eventually left them behind there were still twelve of us, albeit in a straggling line. In the south-west corner of the park are open pine and spruce woods with good ground cover, and it was here that the outing turned into a fungus foray. Progress grew slower and slower until Wilma managed to find some very large *Amanita muscaria* among close-growing young conifers. All of us followed her into the thicket and wandered about in there until, as Gordon put it, it was like a game of hide-and-seek. It took a lot of shouting and a mobile phone call before we stopped playing and decided to have lunch.

The wind became noticeably colder and stronger as we followed Guthrie's Path along the park's southern boundary. Under the mature beech trees the fungi were entirely different from those of the morning, and the deep purple of *Laccaria amethystea* contrasted with the subtle violet shade on the stipe of *Cortinarius pseudosalor*. When we re-entered the land of conifers, the beauty and variety of the fungi continued to astound us. *Hygrophorus pustulatus* has white arching gills and its relative, *Hygrophorus hypothejus* is one of the few fungi with a genuine English name, herald of winter; we found both of them.

We delayed our return to Balvormie by taking a detour through mature spruce woods, and were rewarded with

Cortinarius semisanguineus, a small brown fungus with gills that flash deep red as the stipe is twirled between your fingers. Finally Vlad and Lynn managed to find the day's rarity at the edge of the car park. This was *Schizophyllum commune*, a white, fleecy bracket fungus with split gills beneath the cap. David Freeman, on his first outing, diligently studied the bryophytes, and Jackie recorded the vascular plants, but today the fungi took pride of place.

David Adamson

Split gill

Schizophyllum commune



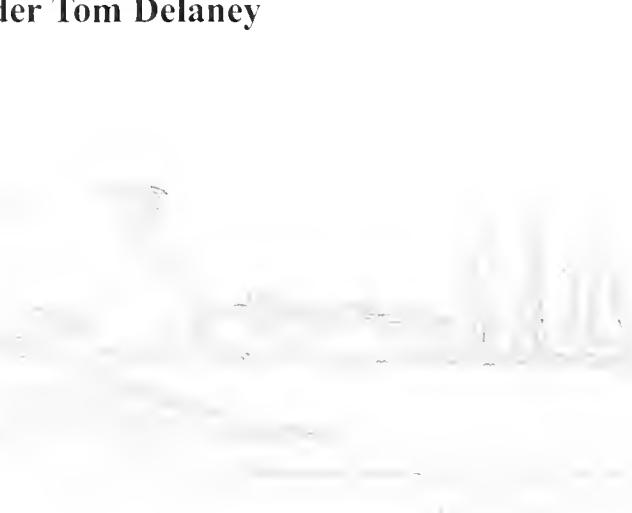
Upper surface grey-white and downy

Gills divide lengthwise and roll back when dry

Kerse of Kinneil and Skinflats

16th November 2013

Leader Tom Delaney



Eleven of us met at the Kerse, overlooked by the flaresacks and cooling towers of Grangemouth parking by a Scottish Water depot where the contents of septic tanks are processed. The forecast threatened rain and strong winds. Despite these somewhat unpromising factors, we had a lot to look forward to, and as it turned out, although the morning was dull, the rain remained a threat, and the wind, though blustery, was quite warm.

The Kerse of Kinneil mudflats, together with those at nearby Skinflats, cover an enormous area, extending over 2 km between high and low water and amounting to about half the total intertidal

habitat on the Forth estuary. They and their associated lagoons lie within the Firth of Forth Site of Special Scientific Interest SSSI and the Firth of Forth Special Protection Area SPA, which affords them some protection from damaging development and human activity. The mudflats are home to populations of small worms, shrimps, clams and snails, and this rich food source is a magnet for flocks of waders and waterfowl, particularly in autumn and winter.

From the Scottish Natural Heritage SNH we learn that the commonest worm living in the mud is the ragworm *Nereis diversicolor* but there are also many other small worms, such as sludge worms or Oligochaetes, or small Polychaete worms such as *Manayunkia sp*, *Pygospio sp*, *Streblospio sp* and *Eteone sp*. The commonest shrimp *Corophium volutator* living in the mud is related to the sand hoppers. There are two clams present in the mudflat – the Baltic tellin *Macoma balthica*, and the edible cockle *Cerastoderma edule*. There are also large numbers of small mud-snail *Hydrobia ulvae*. Feeding on these animals, each bird has its own preference. Shelducks feed mainly on mud snails and sludge worms, whereas small waders such as dunlin, redshank, and knot feed mainly on *Corophium*, Baltic tellin and worms: curlews, on the other hand, feed mainly on the largest rag worms. When the tide covers the mud, large numbers of brown shrimp and fish such as flounder, goby, and eelpout come in to feed. It is estimated that the fish and shrimps consume three times as much food from the mudflats as the birds.

The main spectacle at the site occurs as the feeding flocks are driven off the mud by the advancing tide. On the previous week's recce, we were surprised to see that the mudflats are rapidly covered four hours before high tide, and so we advanced our start to 10am to catch the best of the display. Close to the start point we found a large congregation of lapwings, along with a scattering of curlews and a few single godwits of both species, which gave us a good opportunity to study the differences. There were lots of teal, redshanks and black-headed gulls, plus small groups of mallard. Shelducks, traditionally numerous here, were surprisingly few and far between. There were no pintail, another winter speciality of the place. A little farther off were good numbers of dunlin and a few ringed plovers. Meanwhile, the lapwings were quite flighty, making us suspect that an unseen raptor might be spooking them.

Along the shore, a large saline lagoon, a rare habitat in Scotland, provides a convenient roost for waders and ducks driven off as the tide covers their mudflat feeding grounds. We saw a Buzzard and then a second soaring distantly over the lagoon. As we watched, Laura mentioned modestly that she had a Peregrine in her sights. Eventually we all managed prolonged views as it soared obligingly close.

As we moved along the shore, flocks of waders performed complex aerial manoeuvres before heading off. Obligingly, the sun came out then, lighting up the birds as they twisted and turned in mass formation flight. The sunlight also picked out many distant flocks, flashing silver as they flew up-river. Nearer the lagoon, alongside a fast flowing creek, we spotted the distinctive pale-gray

form of a greenshank feeding eagerly close in to the bank, up to its belly in the water. Another appeared and the two then fed happily along with a group of godwits and redshanks, giving our group excellent views.

Suddenly, and probably in reaction to the peregrine's return, a great cloud of black-tailed godwits flew up from the lagoon, showing their dazzling black-and-white wing and rump pattern obvious in flight but cunningly concealed when they are feeding. After considerable dispersal and reformation flights, they disappeared in groups leaving behind only a small rearguard.

We ate our lunch in the shelter of some willow trees and a couple of giant concrete rollers, seemingly designed originally to block the coastal track, now abandoned, but still performing that function. The tide had attained its maximum, and in the now deeper water a couple of great-crested grebes sailed by, fishing their way westwards where only a short time before there had been nothing but mud. A bit further out was a group of red-breasted mergansers, the males furiously performing a communal head-flicking display. Then a flock of about 40 shelducks flew over. We also saw a couple of goosanders.

On the way back to the cars a small, reddish, hairy caterpillar made its way across the track.

Katherine later identified it as Ruby Tiger Moth *Phragmatobia fuliginosa*.

Lyn and Jackie continued along the woodland, botanising, while four carloads of us took the motorway to the new Royal Society for Protection of Birds (RSPB) reserve called Skinflats, although it is actually located at Powfoulis, close to Kincardine Bridge. It is designed to be a high-tide refuge for waders and wild fowl, but was bereft of birds. However, we did see a little egret and, soon afterwards, amid some excitement, found a kingfisher and, then another one. A good finish to a good day out.

Tom Delaney

Water of Leith Balerno to Slateford

7th December 2013

Leader Malcolm Lavery

A dedicated party of 13 braved the bleak midwinter of early December for an enjoyable amble down the Water of Leith walkway from Balerno to Slateford. An encouraging number of new faces were present, many of whom had considerable knowledge to contribute.

Almost immediately, a statuesque heron was seen on the far bank, stalking prey along the riverside. Other birds were busy in trees and bushes above us, including song thrush, chaffinch, robin and great tit. Fieldfares flew high from tree to tree over fields on the far bank, showing that these winter visitors were by now well established.

Harts tongue fern *Asplenium scolopendrium* was prolific in many places along the riverside, and cherry laurel *Prunus laurocerasus*, with brightly coloured berries, cropped up here and there. Fungi were evident, including yellow jelly *Tremella mesenterica* and candlesnuff fungus *Xylaria hypoxylon* was also present, and noted frequently along the path side were earthstars *Gastrum triplex*.

The introduced plant flowering nutmeg or Himalayan honeysuckle *Leycesteria formosa* was observed with attractive and well developed purple drooping fruits. Just ahead a very obliging buzzard flew low along the path not more than 50 yards away, giving us an excellent view of this now very common bird of prey.

A large patch of bamboo was seen growing on waste ground alongside the walkway, which looked as if it was spreading quite invasively. Speculation was that this might have escaped from a former plant nursery in the area.

Among flowering plants found were the unusual cuckoo pint *Arum italicum**, red campion *Silene dioica* and white dead nettle *Lamium album*.



Crossing a bridge over the river after lunch an elusive grey wagtail was briefly glimpsed before disappearing upstream. Passing Colinton, the attractive fern black spleenwort *Asplenium adiantum-nigrum* was observed, and other ferns reported included wall rue *Asplenium ruta-muraria* and maidenhair spleenwort *Asplenium trichomanes*. After the tunnel at Colinton we saw several orange ladybirds *Halyzia 16-guttata* overwintering on fence posts, the second year in succession we have seen this species here.

Observant members making a careful survey towards the rear of the group had noted the large mushroom lilac bonnet *Myceua pura* and a dozen species of moss plus a handful of liverworts including *Lunularia cruciata*.

Dippers were heard, and at times seen at various points, most noticeably by the Redhall allotments where a pair offered us a sub-aquatic display that was a joy to watch. Molly reported the sighting of a group of long-tailed tits, and a tree creeper, adding nicely to the bird count for the day

We visited the hidden meadow behind Redhall Walled Garden where teasel and crab apple are commonly found – both were present with some apples still on trees and the brown teasel stems standing very tall. A fitting finale to a very productive day was provided by a sighting of a female goosander, which showed well in the last weir pool before turning shy and diving behind overhanging bushes.

Malcolm Lavery

*Ken Dawson on his first excursion with ENHS identified a plant at Woodhall Mill as *Aruum italicum* ssp. *italicum* which is a new record for Midlothian and likely to be a garden escape.

Silverknowes and River Almond Walk and Christmas Lunch

28th December 2013

Leader Janet Watson

This year we returned to the outskirts of Edinburgh and 18 of us set off from Silverknowes Promenade in a cold wind but managed to spot many shelduck, turnstones, bartailed godwits, ringed plover, dunlin and knot - not to mention oyster catchers, herring and black headed gulls. There was also a crow dropping shells. When we reached the River Almond we were relieved to be sheltered from the wind and so the pace slackened but owing to the previous days of heavy rain the river was in spate and it was very wet under foot, nevertheless, there were goosander, a cormorant, moorhen and two swans. Although, mainly keeping to the river bank because of the swirling water someone managed to hear a dipper above the roar of the water, redstart and long tailed tits were seen. There was a large hazel nearly in flower and five species of flower were seen in bloom. The water was thundering over the weir and was distorted by a huge tree half over it which had been washed down. A heron was looking intently into the rushing water where we had seen one four years ago. About 300 yards past the weir we saw where the tree had crashed down on the opposite bank. The park had become exceedingly wet and muddy so at the foot of the steep steps we opted to return. Eunice and Denis led a small party back to Lauriston Farm by an alternative route while the remainder opted to return by the way we had come. We were alarmed to see three mallards in mid stream being swept down the river and to our astonishment they shot over the weir but somehow they took flight and we were thankful to see them flying down the river.

Not everyone went to Lauriston Farm for lunch and others who did not go on the walk joined us and we ended up with 18 having a jolly time with crackers and a very reasonably priced meal.

Janet Watson

Indoor Meetings are held monthly at the Guide Hall in Melville Street

British Trust for Ornithology - Garden Bird Watch

23rd January 2013

John Wilson

John's professional life has been in physics, mostly working on materials for energy conversion and in particular, thin-film solar cells. He was at Heriot-Watt University since 1975, retiring as head of physics at the end of 2012. As a birdwatcher, John has been a member of the British Trust for

Ornithology (BTO) for some years. Since 1999 he has contributed his garden bird counts to the BTO Garden BirdWatch survey, and more recently his garden has been included in the winter Garden Bird Feeding Surveys. As the Lothian Ambassador for Garden BirdWatch he promotes further participation across this area.

John commenced his talk by describing the Garden Birdwatch in general. It is funded by annual subscription with good coverage over part of the Lothians, 130 gardens being recorded at the moment. The survey takes place throughout the year, unlike the RSPB's single yearly snapshot. Weekly observations are very valuable, with submissions showing the maximum number of birds seen in one week, by paper or online. Members can track what's happening in their area, do post code comparisons, compare with other gardens in their area or elsewhere. A quarterly magazine, the Bird Table is issued to members with reports, a news service, species information and leaflets. Annual results are issued usually in March. Rare sightings are unusual, however two years ago an eagle owl was seen in a Balerno garden! More than likely an escapee. Birds benefit from gardens through insect predation but do gardens benefit from birds? How are gardens used and what changes are seen over time?

John went on to describe the regular and long term ripple pattern of some garden birds in particular. The bullfinch, a garden visitor only in recent years, used to be captured and shot because of its damage to fruit growers' trees. House sparrow records show a regular up and down trend, with a slightly worrying long term downward trend. A separate survey was carried out to investigate this downward trend and to ascertain whether it be caused by garden type or by cats/dogs etc.

Goldfinches are being reported more and more in gardens since 2011; and wren numbers were down that year also. A result of the bad winter in 2010 the likely cause for both. Song thrush, starling and greenfinch were best for Scottish gardens. We were then led on a month by month tour of garden birds starting in January

Joan McNaughton

Badgers in Edinburgh - biology, behaviour, protection, distribution and problems

27th February 2013

Tricia Alderson

Representing the Lothian & Borders Badger Group Tricia's curiosity about badgers developed during her time walking dogs on Corstorphine Hill. Her excellent knowledge of the Hill and its badgers, has led to links with the police, council planning, scientific research and Scottish Natural Heritage (SNH). The City of Edinburgh Badger Alert Map of 1999 is a valued resource helping planners and badger group volunteers work together to mitigate conflict. Her interest was preceded by Charles Campbell, prominent in the ENHS at the end C19, reported that by the 1800's the rarity of badgers was due to game preservation. He referred to setts at Dalmeny, 1889, and at Corstorphine Hill, 1903, which still have thriving setts. European badger *Meles meles* is our largest mustelidae, and common throughout rural and urban Britain. Our modern badger evolved in the early middle pleistocene and is adapted to tunnel dwelling with its low slung body and long clawed but short legs perfect for digging their setts. An excellent sense of smell and hearing benefits their nocturnal lifestyle. Badgers enjoy earthworms, wasps nests, mammals up to small rabbit size, fruits, seeds and nuts. These formidable hunters with a strong sagittal crest and a powerful set of interlocking jaws suffer a major threat,



man with his cars, chemicals, guns and dogs.

Badger clans consist of a dominant boar, sow and cubs, with subordinate individuals. Clan size is regulated by food wealth and a clan scent marked boundary and latrines, even cubs demand marking from the subcaudal gland. However, badgers do visit other setts and permanent dispersal along green corridors increases breeding opportunities. Locally badger mating is common in March and the autumn with implantation occurring in December. A well established sett may have 50 well used and 27 less used entrances, 12 chambers and 5 latrines. The area around hilly setts becomes terraced and often shared with foxes and rabbits. Edinburgh has 75 setts with between 5 and 10 satellite setts to take advantage of food sources, reduce parasites, for the sick and other temporary residence reasons. Populations are usually estimated relative to the road kill data and low numbers in East Edinburgh, former mining areas, may relate to sporting activities, such as baiting.

Badgers are protected in Britain by the Protection of Badgers Act 1992 and Nature Conservation (Scotland) Act 2004 to protect the animals from deliberate cruelty and the incidental effects of lawful activities. An SNH licence is required prior to work that may disturb a badger or damage a sett. Members questions included topics such as, sett sharing, TB status of Scottish badgers, conflict with roe deer, population limiters and the link with the fall in ground nesting bird numbers in the Pentland Hills. One member asked why naturally dead badgers are not seen – the answer was that the corpse is 'walled-in' the sett.

Sarah Adamson

Nature in Scotland's Forests

27th March 2013

Jeff Waddell

As Open Habitats Ecologist and Vascular Plants Botanist for Forest Enterprise Scotland (FES) Jeff is involved in mapping habitats and vegetation and advising on the management of open habitats including blanket bogs, lowland raised bogs and coastal sand dunes. He is also involved in developing policy for the conservation of open habitats in relation to Forestry.

Jeff began his talk with an overview of the role of FES as an agency of the Forestry Commission Scotland. He explained that in the National Forest Estate (NFE) 68% of the land is woodland, 10% of which is native woodland. The other 32% is non-native open land. The strategic plan for the NFE is implemented at a local level by ten Forest Districts. They protect, manage and maintain Scotland's woodlands and forests and their tasks include planting, forest design, marketing timber and providing facilities and access for the public. The ten Districts are: Galloway; Dumfries and Borders; Scottish Lowlands; Cowal and Trossachs; West Argyll; Tay; Lochaber; Inverness, Ross and Skye; Moray and Aberdeenshire; North Highland. Jeff looked in detail at a number of these districts starting with Dumfries and Borders Forest District. He stressed the importance of undertaking habitat sweeps which can be used to help design and inform any planting plan as happened at Corserig. Other rangers are also involved and undertake activities such as ensuring that harvesting of trees takes place outside the bird breeding season and reedbed management to ensure the survival of rare reeds such as the Narrow Small Reed. Additional activities undertaken by Forest Enterprise include staff training in rare plant identification and management. Overall, the FES is now working to support a move towards cost neutral forestry for example by using Highland cows to graze open forest pastures. Jeff's talk was detailed and informative and provided an insight into some of the work of Forest Enterprise Scotland.

Kathy Buckner

National Forest Inventory

25th September 2013

Wilma Harper

Accurate, up-to-date information about the size, distribution, composition and condition of our forests and woodlands is essential for developing and monitoring policies and guidance to support their sustainable management. To gather this information and keep it up to date, the Forestry

Commission carries out periodic surveys of forests and woodlands across Great Britain. The current National Forest Inventory (NFI) – which began in 2009 and will complete its first cycle in 2014 – will provide a record of key information about our forests and woodlands. This information is useful to many people and organisations involved in forestry and land management, as well as in the wider world of planning, policy development and business. The National Forest Inventory definitions align with national and international reporting standards and covers:

- Any forest or woodland (urban or rural) that is at least 0.5 hectares in area with a minimum width of 20 m.
- Any forest or woodland area that has at least 20% tree canopy cover (or the potential to achieve this).

Data for the NFI is being collected using ground surveys, aerial photography, and other sources such as satellite imagery and some information provided by owners and managers of forests and woodlands.

The location and extent of all forests and woodlands is recorded, stored and maintained as a digital map. This data can be rolled back or forward in time to give estimates of change between reporting periods. The map can distinguish between various forest types, for example conifers, broadleaves or mixed. The map is updated annually and published as part of the leaflet Forestry Facts and Figures. Not all of Britain's forests and woodlands are ground surveyed. The survey teams visit a representative sample of 15,000 1 hectare (100 m x 100 m) plots across England, Scotland and Wales. The plots have been randomly selected in a sampling scheme designed by Forestry Commission statisticians so that the information needed for the survey can be efficiently gathered. The majority of plot locations will be permanent, to allow changes to be monitored and so that tree growth can be calculated.

At each plot or square information is collected not just about the woodland but also other habitats and man-made features. Sample plots are then located within each component of the square and detailed measurements taken of the trees. The surveyor teams are equipped with state-of-the art rugged laptops, hand-held GPS units and Vertex hypsometers as well as more conventional equipment such as tape measures and compasses. These make a formidable kit set to be carried along with personal first aid equipment and of course lunch.

This information can then be scaled up using the map data to give the overall picture for each country and region with known statistical confidence levels. Combining this with models of tree growth allows forecasts to be produced based on different management scenarios. The information from the NFI was used to show the regional distribution of ash in autumn 2012 when die-back of ash *Chalara fraxinea* was first found in Britain. This provided distribution data to feed into models of how the disease might spread and gave some context for interpretation of the results of a rapid survey. Forecasts of possible future production of conifer timber are used by sawmills to assist in making investment decisions.

Wilma Harper

Discovering Scotland's Diversity

23th October 2013

Katherine White

Katherine studied Environmental Biology at Hull University, followed by a Masters in Plant Genetic Resources at Birmingham University. She previously gave a presentation at Members' night in April this year on her volunteer post on Flat Holm Island, where she discovered her interest in wildlife and a passion for the conservation of biodiversity.

Since volunteering on Flat Holm Island in 2007, Katherine worked as a seasonal countryside ranger at a number of different reserves and moved to Edinburgh in 2011 to start an 18 month ecological apprenticeship with the Scottish Wildlife Trust (SWT). The talk provided an insight into her role as an ecological trainee on this unique 'Developing Ecological Surveying Skills' (DESS) Project, which was funded by the Heritage Lottery, as well as contributions from SWT members and

volunteers.

The main aim of the DESS project was to fill part of the current skills gap in field surveying and to help secure the future of field skills in Scotland. Ten enthusiastic trainees were selected to learn species identification, nationally recognised survey methodologies, legislation, mapping and data management, health and safety, report writing, as well as completing an Scottish Qualifications Authority (SQA) professional development award in Ecological Surveying. Katherine shared some of the highlights of the exciting practical field work she was involved in during the 18 month apprenticeship. This included bird, water vole, otter, badger, bat, amphibian and invertebrate surveys across a range of locations in Scotland. Katherine also talked of how the botanical identification training with Ben Averis, a naturalist and artist, at the beginning of the DESS project inspired her interest and passion in field botany. She then went on to focus on botanical surveying by doing a project for East Lothian Council at North Berwick Law and Pencraig Wood.

Katherine concluded her talk by thanking the Edinburgh Natural History Society for financially supporting her to gain a Certificate in Field Botany the previous year at Kindrogan Field Centre. This was a fantastic training week of botanical identification work with Heather McHaffie, where she spent time working through botanical keys as well collecting and pressing specimens.

Additional course highlights included close encounters with red squirrels and pine martins. This Royal Botanic Garden Edinburgh course combined with ENHS excursions and the support of many members has allowed her to pursue her interests in field botany and make significant progress with her botanical identification skills.

Joanie McNaughton

Goshawks and other Birds of Prey in the Borders

27th November 2013

Malcolm Henderson

As an former Wildlife Liaison Officer with the Lothian and Borders Police, Malcolm shared his passion for birds of prey and talked about their success in breeding and their subsequent persecution, with a particular emphasis on Goshawks.

Malcolm introduced Tim Chamberlain, a new member of the Lothian & Borders Raptor Study Group, and PC Hannah Medley, the current Wildlife Liaison Officer in Lothian and Scottish Borders Police. They confirmed certain facts and shared some incredibly humorous stories of their time working with raptors, some involving Tim climbing down dangerous cliff faces or up treacherously unstable trees to reach often precarious nest sites.

Malcolm's presentation incorporated detailed information about the better known raptors in Scotland such as: tawny, barn, short-eared and long-eared owls, kestrel, osprey, peregrine falcon and merlin. He outlined conservation strategies, monitoring techniques and the history and level of persecution of these species. Using compelling photographs and personal narratives, Malcolm, in his unique and witty manner shared some startling facts about other birds of prey in the Borders. For example, he revealed that the golden eagle population in Peeblesshire had three actively breeding pairs in 2007 and a survey in 2012/13 located just one single bird. A similar statistic has been mirrored by hen harriers, where there should have been up to seventy pairs, a survey on the population in 2012 revealed that there were just three.

Malcolm's passion is the goshawk. The goshawk used to be widespread throughout the UK but deforestation and heavy persecution led to extinction. The bird was reintroduced in the mid 1960's by falconers using birds from Poland and Scandinavia, the Scottish population currently stands at around 150 breeding pairs. It is a formidable bird, superficially similar to a sparrowhawk but significantly larger. Other identifying features include a well-protruding head and neck; broad, rounded tail, a deep, broad belly and more pointed wing-tips compared to a sparrowhawk. They are grey above with whitish under parts, neatly barred with dark lines. Male goshawks usually have a strong head pattern with a dark crown, white eye stripe and dark ear markings, creating a 'masked appearance'. At close quarters adult goshawks have orange-red irises. Typically their nests are located in large areas of hills with well-spaced soft wood trees. Goshawk nests can be positively

identified by looking for plucked feathers and droppings and the presence of fresh material on a 3ft diameter nest. An active nest should have 4, hen-sized light blue eggs. The average clutch size is 3.5. Often the remains of prey from a very varied diet may be present; such as small birds, small mammals, amphibians, crows, pigeons, barn and short-eared owls and squirrels. A nearby plucking site may be found, typically a roost leg usually higher up from the nest to glide down into it with prey. The diverse diet has bought the goshawk into conflict with landowners and game-keepers alike. They favour woodland that is typically farmed by the Forestry Commission and they favour prey provided in abundance by grouse and pheasant game-keepers. They are also the target of egg and chick thieves.

Malcolm talked in great detail about current projects regarding deoxyribonucleic acid DNA or genetic profiling, where the police can store genetic fingerprints establishing a database that will be used to cross-reference DNA samples collected during investigations into suspected thefts. The collection of DNA from feathers, cheek swabs, droppings and even egg shells can be used to establish a family tree and the age of the current goshawk population in Scotland. In fact, interestingly, Malcolm informed us that DNA collected so far has revealed that the birds can be traced back to one single female, with an introduction of a 2nd female in 1997/98. However, due to a lack of funding these types of projects are being put on hold and instead, Malcolm and his colleagues are more interested in using their passion and knowledge to educate and create awareness of this fantastic species of bird to help stop the threat of persecution altogether.

Laura Edwards

Winter Programme for 2014 starts on Wednesday 17th September at 7.30pm at the Guide Hall in Melville Street

Forth Island Seabird Counts 2013

In March and April there were storms in the North Sea. From mid-March large numbers of dead auks were getting washed ashore along the east coast and it is thought that they were underweight and starved, unable to feed during the storms. The majority of these were puffins and approximately 60% were of breeding age. There were also smaller numbers of guillemots and razorbills. More details can be found in Scottish Birds volume 33:2.

It was with interest then that we started this year's puffin burrow counts, landing on Fidra at the end of April and finding that numbers looked reasonable with 5 burrows more than the 2012 figure. A couple of days later we landed on Craigleath where we discovered that more than half of the puffin burrows were unoccupied. This led to discussions with Prof. Mike Harris from the Centre for Ecology & Hydrology who had found the same on May Isle. Over the next two or three weeks he noticed that more puffins were returning to the island and his final count showed that numbers had doubled. The weather prevented us from getting back out to Craigleath to check but the consensus was that it seemed reasonable to assume that numbers would have doubled here too.

The other seabird species were also returning to the islands later than normal this year. Despite this we still started our main seabird counts as usual at the end of May not knowing how many dates would need to be rearranged due to bad weather.

- **Fulmar:** Breeding numbers are very similar to last year
- **Cormorant:** The colony on Inchkeith was counted from the boat so some nests were not counted so a direct comparison to last year's figures is not easy. The total number of nests could be down a little this year.
- **Shag:** For the last seven years there has been a steady increase in breeding numbers. Over the winter this species has obviously suffered during the storms and numbers returning to breed this year are only just over half of last year's

Summary of Seabird Counts on the Islands in the Firth of Forth

2013	Bass Rock	Craigleith	Lamb	Fidra	Inchkeith	Carr Craig	Inchcolm	Haystack	Inch-mickery	Inch Garvie	Long Craig	May Isle	Total	
	Fulmar (AOS)	63	89	13	159	265	0	c170	0	36	201	0	218	1,214
Cormorant (AON)	0	24	56	0	60+ part count from boat	63	0	0	0	0	0	0	203+	
Shag (AON)	24 (FSG) 32 (SSC)	117	44	153	170	10+	17	0	59	0	0	201	796+	
Gannet (AON)	x	0	0	0	0	0	0	0	0	0	0	0	x	
Eider (AON)	7	c70+	x	16	x	x	x	x	0	41	42	x	x	176+
Great B-b Gull (AON)	0	21	1	3	9+	0	1	0	1	1	1	0	36	73+
Lesser B-b Gull (AON)	c2	x	x	207+	x	9	x	17	156	c37	0	x	428+	
Herring Gull (AON)	x	x	891+	x	50	x	12	233	c260	0	x	x	1,446+	
Kittiwake (AON)	c270	293	47	128	300	0	82	0	0	0	0	0	1,712	2,832
Common Tern (AON)	0	0	0	0	0	0	0	0	0	0	0	c20	20	
Arctic Tern (AON)	0	0	0	0	0	0	0	0	0	0	0	0	c399	399
Roseate Tern (AON)												0		
Sandwich Tern (AON)	0	0	0	0	0	0	0	0	0	0	0	0	0	
Razorbill (AOS)	105	129	59	109	59	0	14	0	0	0	0	0	2,879	3,354
Guillemot (birds on cliffs)	c1710	c1,620	2460	411	71	0	0	0	0	0	0	0	14,764	21,036+
Puffin (birds unless otherwise stated)	c5,000 AOB	25 b	c755 AOB	c700 b	0	38 b on sea	0	11 b on sea	0	0	0	0	c46,200 AOB	c51,955+ AOB

AON/AOS/AOT=Apparently occupied nests/sites/territories; x=birds present but not counted; 0=none breeding; c=circa; b=birds; s=sites

count.

- **Greater Black-backed Gull:** Although the number on some island is different, the total number of territories is the same as last year.
- **Kittiwake:** Over the last 15 years there has been a downward trend which averages out at approximately 6% each year. This year there has been a decrease of about 33% compared to last year.
- **Terns:** Once again May Isle is the only island where any terns bred this year. Common Tern numbers remain the same as last year while Arctic Tern numbers are up by about 50%. The Common Tern colony within Leith Docks continues to do well with 816 nests, up 43% on last year.
- **Razorbill:** Breeding numbers are down slightly on last year though still up on the previous four years.
- **Guillemot:** Although numbers are down approximately 8% on last year, numbers are not too dissimilar to the last few years.

Bill Bruce with thanks to the Forth Seabird Group, Scottish Wildlife Trust and Scottish Natural Heritage for allowing the use of their data.

Bumblebee Nests

Most bumblebees nest in holes in trees, walls or underground, and some years ago I discovered a bumblebee's nest under some cracked concrete paving in a nearby street (fortunately not a busy street). But some bumblebees nest on the surface. Last summer I was deadheading in a rather overgrown border on the back green and was surprised to find a pile of finely-shredded vegetation among the plants. I couldn't think how it had got there, and gave it a poke with a stick whereupon a number of bumblebees emerged and I retreated. They were not particularly aggressive but I did not want to disturb them further. They were carder bees *Bombus pascuorum* which apparently often nest above ground where they build a cover of debris, usually largely of moss. I did not investigate the vegetation further, but there's plenty of moss available.

Jackie Muscott

This observation by Jackie reminded of a similar incident in our garden, probably over 15 years ago. Having been aware of bumblebee activity throughout the summer I was surprised when pulling up an enormous mullein plant noticing a nest before I destroyed it. The bundle had been completely sheltered by the rosette of lower leaves and very soft from the downy leaves used in construction. It was a one off and I am forever hopeful of a repeat performance now we are more interested in bumblebees. These memories show the cumulative aspect of studying natural history and add to the mental picture I retain of watching bumblebees active around underground tree stump nests as a child in the outskirts of London.

Sarah Adamson

On the bus

During 2013 a number of excursions had been reachable by Lothian Regional Transport buses, including Musselburgh, Dalkeith, Water of Leith at Balerno and Auchendinny. Some of these excursions included route numbers on the programme, however, on others members had organised to meet up using social media. The gaggle of Nats on the top deck of a bus may have surprised some of the regular occupants. The view from the top offered sights generally missed and the warmth appreciated after a chilly day outside, as well as being a sociable time. Several new members reached their first outings by bus acting as a timely reminder that not all members own cars and may prefer not to feel dependent on others.

Looking Forward

The arrival of Journal 2013 gives the opportunity to look back at the activities of the Edinburgh Natural History Society and gain insight into what the contributors consider important.

Do you like to take on new challenges and find new groups of organisms to study? Are you inspired to try and learn something new?

There is a wealth of knowledge held by the members and new members bring their knowledge of other areas. If you want to look at a 'new to you' group of organisms it is worth posting on the Yahoo or Facebook groups to find if others share your aspirations or hold the knowledge you would like to gain. One of the great assets of the ENHS is the broad and flexible range of interests amongst the members.

Or take a softer approach because the members of ENHS share your enthusiasm to be outside in a sociable group and gain a more general understanding of what is around you.



Journal 2014 - Deadline 15 December 2014 - Please remember the journal as we go through the year. Submit special sightings and reports to edinburghnats@gmail.com, and post them with photographs on Yahoo and/or Facebook.

A special request

Most of the illustrations in the Journal were been drawn by Jackie Muscott and Eric Perry. Those drawings, such as the scene above and many organisms were donated to the ENHS via the estate of Eileen Perry, Eric's wife. Many show glimpses of excursions that will be remembered by those present and invoke their own personal memories. If you go out regularly to excursions you will see that the images are timeless.

A picture is worth a thousand words – unknown origin

Do you have that special skill to capture time in a picture or are you willing to do some illustrations for the journal? If yes, please offer by email edinburghnats@gmail.com.

The contents of the Edinburgh Natural History Journal are the observations and insights of the members of the Society.

